



## Guide 01

# Market Participants User's Guide

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**Prepared By: NYISO Stakeholder Services**

New York Independent System Operator  
10 Krey Boulevard  
Rensselaer, NY 12144  
(518) 356-6060  
[www.nyiso.com](http://www.nyiso.com)

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## Revision History

| Version | Effective Date | Revisions   |
|---------|----------------|---|
| 1.0     | 06/01/2000     | Initial Release   |
| 2.0     | 06/01/2001     | <ul style="list-style-type: none"> <li>➤ Technical Bulletin 1 Digital Certificate - Obtaining, Validation, Backup, and Usage: Incorporated in Sections 4.4, 4.4.1, 4.4.2, and a re-titled 4.4.3</li> <li>➤ Technical Bulletin 4 Billing Organization Changes: Incorporated into Section 6.4.2, View/Change Billing Organization. Also, incorporated into Section 6.5.2, View/Change Billing Organization</li> <li>➤ Technical Bulletin 5 MIS Transactions with Zero Megawatts: Incorporated into Section 7.6.1, Step 8, Special Notes</li> <li>➤ Technical Bulletin 6 Load Forecasts for Facilities in the MIS: Incorporated into Section 7.5.1, Step 5, Load Forecasting</li> <li>➤ Technical Bulletin 7 Price Capped Loads and their Day-Ahead Scheduling: Now superseded by Technical Bulletin 69, which is incorporated into Section 7.5.1, Zonal Price Capped Load Bidding</li> <li>➤ Technical Bulletin 8 Establishing a Price Capped Load Bus: Now superseded by Technical Bulletin 69, which is incorporated into Section 7.5.1, Zonal Price Capped Load Bidding</li> <li>➤ Technical Bulletin 9 Meaning of the MIS Generator Bid Expiration Date: Incorporated into Section 7.4.1, Step3, #5- Expiration (DAM Only)</li> <li>➤ Technical Bulletin 11 Minimum Run Times Extending Past the Commitment Period: Incorporated into Section 7.3.1, Minimum Run Times</li> <li>➤ Technical Bulletin 12 Dispatchable Units' Minimum and Upper Operating Limits Must be Different Values: Incorporated into Section 7.4.1, Step 4, #2, Minimum Generation, Special Note</li> <li>➤ Technical Bulletin 13 MIS Load Modeling and LSE Responsibilities: Incorporated into Section 7.5.1, Prerequisites Technical Bulletin #14 Changes to Transaction Information in the MIS: Incorporated into Section 7.6.1, Step 9, Transaction Contract Owner, and TUC Charge</li> <li>➤ Technical Bulletin 19 MIS Messages for Transactions: Incorporated into Section 7.6.1, Step 9, Transaction Messages</li> <li>➤ T. B. 20 Decremental Bids for Import and Wheel-Through Transactions: Incorporated into Section 7.6.1, Step 7, Step 4</li> </ul> |

| Version | Effective Date | Revisions   |
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|         |                | <ul style="list-style-type: none"> <li>➤ Technical Bulletin 30 Bidding into the NYISO LBMP Market from an External Control Area: Incorporated into Section 7.6.1, Proxy Buses, in conjunction with Technical Bulletin 37.</li> <li>➤ The last section of Technical Bulletin 30, Scheduling of Service, is incorporated into Section 7.6.1, Step 9, Scheduling of External Transactions</li> <li>➤ Technical Bulletin 31 Minimum Generator Level opportunity Determination: Incorporated into Section 7.4.1, Step 4- #3, Minimum Generation Cost</li> <li>➤ Technical Bulletin 37 Proxy Buses: Incorporated into Section 7.6.1, Proxy Buses, in conjunction with Technical Bulletin 30</li> <li>➤ Technical Bulletin 41 Changing Transaction Bids for the Current Day in the Hour-Ahead Market: Incorporated into Section 7.6.2, Changing Transaction Bids for the Current Day in the Hour-Ahead Market</li> <li>➤ Technical Bulletin 46 Bidding Above ICAP DMNC in the Day-Ahead and Real-Time Markets: Incorporated into Section 7.4.1, Step 4, Bidding Above ICAP DMNC</li> <li>➤ Technical Bulletin 47 Updating Generator Physical Parameters in the MIS: Incorporated into Section 6.3.2, Updating Generator Physical Parameters</li> <li>➤ Technical Bulletin 52 Sink Price Caps for External Transactions: Incorporated into Section 7.6.1, Step 8, #2, Sink Price Cap</li> <li>➤ Technical Bulletin 55 ECA #3- ICAP Units' DAM bids in the MIS: Incorporated into Section 7.4, ICAP Generator Bids in the Day-Ahead Market</li> <li>➤ Technical Bulletin 63 NYISO Market Participant Support: "Details" incorporated into Section 4.1; Specific Issues Support, A &amp; B also placed in 4.1</li> <li>➤ Technical Bulletin 69 Zonal Price Capped Load Bidding in the Day-Ahead Market: Incorporated into Section 7.5.1, Zonal Brice Capped Load Bidding</li> </ul> |
| 3.0     | 01/14/2003     | <ul style="list-style-type: none"> <li>➤ Submit Preschedule Transaction: Incorporated into Section 8.2.9</li> <li>➤ Submit Group Confirmation: Incorporated into Section 8.2.10</li> <li>➤ Download Templates: Generator Detail: Incorporated into Section 8.3.6</li> <li>➤ Generator Outages/Deratings: Incorporated into Section 8.3.7</li> <li>➤ Load Detail: Incorporated into Section 8.3.8</li> <li>➤ Transaction Contract: Incorporated into Section 8.3.9</li> </ul>  |

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|         |                | <ul style="list-style-type: none"> <li>➤ Generator SCD Schedules: Incorporated into Section 8.3.10</li> <li>➤ Generator PTS Results: Incorporated into Section 8.3.11</li> <li>➤ Generator Availabilities: Incorporated into Section 8.3.12</li> <li>➤ Generator Hourly Meter Inputs: Incorporated into Section 8.3.113</li> <li>➤ Generator SCD Inputs: Incorporated into Section 8.3.14</li> <li>➤ Credit Check Parameters: Incorporated into Section 8.3.15</li> <li>➤ Prescheduled Transaction Bids and Schedules: Incorporated into Section 8.3.16 Prescheduled Transaction Group Status: Incorporated into Section 8.3.17</li> <li>➤ Load Hourly Data: Incorporated into Section 8.3.18</li> <li>➤ Load SCD Data: Incorporated into Section 8.3.19</li> <li>➤ Called out Technical Bulletin 71 Multiple Response Rates may be specified for Generating Units: in Section 4.5.</li> <li>➤ Section 7.3.2, View Generator Detail</li> <li>➤ Technical Bulletin 74 Virtual Bidding in the Day-Ahead Market: Incorporated into Section 7.7, Virtual Bidding</li> <li>➤ Technical Bulletin 81 Submitting Virtual Bids in the Day-Ahead Market: Incorporated into Section 7.7, Virtual Bidding</li> <li>➤ Technical Bulletin 90 Submitting and managing preschedule requests: Incorporated into Section 7.8, Preschedules; Section 8.2.9, Submit Preschedule Transactions</li> </ul> <p>Other Revisions</p> <ul style="list-style-type: none"> <li>➤ Sect. 7.4.1, “Special Note”: Add this sentence to the end of the paragraph: “However, when the unit is registered for the ELR/CLR program, the MIS ignores the Upper Operating Limit and uses the last point on the bid curve.”</li> </ul> |
| 4.0     | 02/15/2005     | Complete Revision of the Guide resulting from SMD2 Implementation.   |
| 5.0     | 11/01/2005     | <p>Global Changes</p> <ul style="list-style-type: none"> <li>➤ References to the old “NYISO.com” have been removed and replaced with new text describing the new “NYISO.com” Web portal.</li> <li>➤ Replaced screenshots from old “NYISO.com” with screenshots from the new “NYISO.com” Web portal.</li> <li>➤ Changed all references to “this manual” to “this Guide.” All links within the Guide were replaced with new links.</li> <li>➤ Grammatical and Style changes.</li> </ul>  |

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|         |                | <p>Section 4</p> <ul style="list-style-type: none"> <li>➤ Replaced old screen captures of NYISO Web site with newer ones.</li> </ul> <p>Section 5</p> <ul style="list-style-type: none"> <li>➤ Changes in Section 5 pertained to the layout of the new NYISO.com Web site. Most of the section was rewritten to accommodate the changes and screen shots of the new site replaced the older ones.</li> <li>➤ 5.10.3-Added link to DSS User's Guide.</li> </ul> <p>Section 6.0</p> <ul style="list-style-type: none"> <li>➤ Section 6 was rewritten to reflect the recent changes to the NYISO Web site.</li> </ul> <p>Section 7.0</p> <ul style="list-style-type: none"> <li>➤ Section 7 was rewritten to reflect the recent changes to the NYISO Web site.</li> </ul> <p>Section 8.0</p> <ul style="list-style-type: none"> <li>➤ Deleted the following Upload/Download Templates</li> <li>➤ Hourly Meter Inputs</li> <li>➤ Load Hourly Data</li> <li>➤ Load SCD Data</li> <li>➤ 8.2.1 Generator Bids (upload) the data type changed to NUM(8,2)</li> <li>➤ 8.2.2 Submit Generator Commitment Parameters same change for the start-up bid cost (1-6)</li> </ul> |
| 6.0     | 11/09/2006     | <p>Global Changes</p> <ul style="list-style-type: none"> <li>➤ Formatting, grammar, and syntax edits throughout document.</li> <li>➤ Replaced figure 3.2-1</li> <li>➤ Replaced MIS Workflows in Section 5.10.4.</li> <li>➤ Replaced all Administrator MP Displays in Section 6.</li> <li>➤ Replaced screenshots for the MIS in Section 7.</li> </ul> <p>Section 2.0</p> <ul style="list-style-type: none"> <li>➤ Under "Planning and Transmission System Expansion" added reference to Transmission Expansion and Interconnection Manual.</li> </ul> <p>Section 2.2.1</p> <ul style="list-style-type: none"> <li>➤ Last sentence of first paragraph, added reference to "ICAP Manual."</li> <li>➤ Removed paragraphs under "Installed Capacity Providers"</li> </ul> <p>Section 2.2.3</p>  |

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|         |                | <ul style="list-style-type: none"> <li>➤ Last sentence of first paragraph, added reference to “Ancillary Services Manual.”</li> <li>➤ Removed all information related to ancillary services beginning with “Five types of ancillary services are summarized as follows”</li> </ul> <p>Section 2.2.4</p> <ul style="list-style-type: none"> <li>➤ Removed header “Hedging Congestion Costs”</li> <li>➤ Added fourth paragraph, referencing “TCC Manual.”</li> <li>➤ Removed all information after “Definitions” through to “TCC Auctions.”</li> </ul> <p>Section 4.1</p> <ul style="list-style-type: none"> <li>➤ Under “Contacting NYISO Customer Relations” removed sentence “In addition, each NYISO...”</li> <li>➤ Updated mailing address</li> <li>➤ Under “Real-time Curtailments” removed “...or the customer’s Customer Relations Representative” from last sentence of second paragraph.</li> </ul> <p>Section 4.3</p> <ul style="list-style-type: none"> <li>➤ Updated screenshot and a rewrite of the section.</li> </ul> <p>Section 4.4</p> <ul style="list-style-type: none"> <li>➤ Rewrite of the section.</li> </ul> <p>Section 5.10.4.1</p> <ul style="list-style-type: none"> <li>➤ Promoted section to third-level heading (now 5.10.4).</li> </ul> <p>Section 6.1.6</p> <ul style="list-style-type: none"> <li>➤ Deleted MIS Classification Model figure and explanation to figure.</li> </ul> <p>Section 6.2.2</p> <ul style="list-style-type: none"> <li>➤ Step 6 – bullet5 – Added PL (physical load) and VL (virtual load) classifications to coincide with current MIS setup.</li> <li>➤ Bullet #10 – Deleted “The automated auction has not yet been implemented.”</li> </ul> <p>Section 6.2.3</p> <ul style="list-style-type: none"> <li>➤ Step 7 – bullets 5-7 – Added PL (physical load), VL (virtual load), and VS (virtual supply) classifications to coincide with current MIS setup.</li> <li>➤ Bullet #10 – Deleted “The automated auction has not yet been implemented.”</li> </ul> <p>Section 6.2.4</p> <ul style="list-style-type: none"> <li>➤ Step 4 – bullets 6-7 – Added VL (virtual load) and VS (virtual supply) classifications to coincide with current MIS setup.</li> <li>➤ Bullet #10 – Deleted “The automated auction has not yet been implemented.”</li> </ul> |

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|         |                | <p>Section 6.3.2</p> <ul style="list-style-type: none"> <li>➤ Under “Updating Generator Physical Parameters” (second bullet) – Called out reference to Technical Bulletin 71.</li> </ul> <p>Section 7.1.1</p> <ul style="list-style-type: none"> <li>➤ Under “Definition” – Removed note, “This display does not reflect all...”</li> <li>➤ Removed old “MIS workflows” and redirected to new workflows under 5.10.4.</li> </ul> <p>Section 7.4.1</p> <ul style="list-style-type: none"> <li>➤ Under “Bidding Above ICAP DMNC” – Removed “Resource Reliability” and added “Auxiliary Market Operations. Also, updated the address from “Washington Ave” to “Western Tpk.”</li> <li>➤ Added Technical Bulletin 145 15-Minute Scheduling of Internal Generation called out in Special Note in the section.</li> <li>➤ Added Technical Bulletin 134 Generator Operating Modes and Qualified-to-Bid Flags for Reserve under SMD2 called out in the section.</li> </ul> <p>Section 7.4.2</p> <ul style="list-style-type: none"> <li>➤ Under “Prerequisites,” Step #4 - Added item #7 – Removed “This section is no longer available...” and added “Allows a Market Participant to indicate...advisory schedules”</li> <li>➤ Under “Display Results” bullet #4 – Removed first four sub bullets (FIRST, NEXT, PREV, and LAST).</li> </ul> <p>Section 7.5.1</p> <ul style="list-style-type: none"> <li>➤ Under “Display Load Profile,” Step #5 - Called out references to Technical Bulletin 64 and Technical Bulletin 88.</li> <li>➤ Bidding, Purchasing, and Reporting Station Power added ‘Special Note’ in 7.5.1 calling out Technical Bulletin 118.</li> </ul> <p>Section 7.6.1</p> <ul style="list-style-type: none"> <li>➤ Under “Scheduling of External Transactions,” Step #7 (examples)- Removed “For Wheel-through transactions the decremental bid currently must be negative”</li> </ul> <p>Section 7.6.2</p> <ul style="list-style-type: none"> <li>➤ Under “Display Results” bullet #3 – Removed first four sub bullets (FIRST, NEXT, PREV, and LAST).</li> </ul> <p>Section 7.6.3</p> <ul style="list-style-type: none"> <li>➤ Under “Display Results” bullet #2 – Removed first four sub bullets (FIRST, NEXT, PREV, and LAST).</li> </ul> <p>Section 7.7.1</p> |

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|         |                | <ul style="list-style-type: none"> <li>➤ Changed language in first paragraph to coincide with Tariff and NYISO Registration Packet.</li> </ul> <p>Section 8.1.3</p> <ul style="list-style-type: none"> <li>➤ Added Technical Bulletin 107 Upload Download Timeout Parameter to the section.</li> </ul> <p>Section 8.2.4</p> <ul style="list-style-type: none"> <li>➤ Replaced, under Transaction Bid Submission Parameters “NYPP” with “NYIS”</li> </ul> <p>Section 8.3.10</p> <ul style="list-style-type: none"> <li>➤ Added Technical Bulletin 124 Templates for Downloading Station Power Data added template to section.</li> </ul> <p>Section 8.3.21 (new)</p> <ul style="list-style-type: none"> <li>➤ Added Technical Bulletin 98 Accessing Daily Reconciliation Reports Template to section.</li> <li>➤ Added text “as NYISO’s data retention policy allows. Please also note that downloads are limited to a maximum result set of 50,000 records,” and added footnote: NYISO’s current policy is five years and is subject to change.</li> </ul>   |
| 7.0     | 03/29/2007     | <p>Global Changes</p> <ul style="list-style-type: none"> <li>➤ Formatting, grammar, and syntax edits throughout document.</li> <li>➤ Changed references discussing entering bid data 18 months in advance throughout the document except in Section 7.8.</li> </ul> <p>Section 5.2</p> <ul style="list-style-type: none"> <li>➤ Removed “OSS” from Market Access paragraph</li> </ul> <p>Section 5.10</p> <ul style="list-style-type: none"> <li>➤ Changed section to indicate retirement of OSS and included reference to Technical Bulletin 149.</li> </ul> <p>Section 6.4.2</p> <ul style="list-style-type: none"> <li>➤ Changed mailing address to Krey Blvd</li> </ul> <p>Section 7.6.1</p> <ul style="list-style-type: none"> <li>➤ Updated section to include new FRP confirmation.</li> <li>➤ Updated links to NERC Web site</li> <li>➤ Under step #8 – Updated first bullet to accurately describe show the minimum run time constraint is applied in the DAM evaluation</li> </ul> <p>Section 7.6.2</p> <ul style="list-style-type: none"> <li>➤ Under “Prerequisites” added language for pre-authorization as the FRP.</li> </ul> |

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|         |                | <ul style="list-style-type: none"> <li>➤ Updated Figure (Transaction Search Results H-3) to show new FRP confirmation.</li> <li>➤ Under Transaction Search Results – Added bullet – Decremental Dollar and FRP Confirmation</li> <li>➤ Updated Figure (Transaction Search Results H-5) to show new FRP confirmation.</li> </ul> <p>Section 7.6.3</p> <ul style="list-style-type: none"> <li>➤ Added language for the FRP and source/sink.</li> </ul> <p>Section 8.2.4</p> <ul style="list-style-type: none"> <li>➤ Updated Transaction Bid Response Parameters to include “FRP Confirmation Status”</li> </ul> <p>Section 8.2.5</p> <ul style="list-style-type: none"> <li>➤ Updated Transaction Bid Confirmation Response Parameters to include “FRP Confirmation Status”</li> </ul> <p>Section 8.2.8</p> <ul style="list-style-type: none"> <li>➤ Updated Delete Transaction Bid Confirmation Response Parameters to include “FRP Confirmation Status”</li> </ul> <p>Section 8.3.5</p> <ul style="list-style-type: none"> <li>➤ Updated Transaction Bids and Schedule Response Parameters to include “FRP Confirmation Status”</li> </ul> <p>Section 8.3.6</p> <ul style="list-style-type: none"> <li>➤ Updated Transaction Bids and Schedule Response Parameters to include “FRP Confirmation Status”</li> </ul> |
| 8.0     | 09/16/2008     | <p>Global Changes</p> <ul style="list-style-type: none"> <li>➤ Reformatted per new template to standardize presentation.</li> <li>➤ Simplified numbering of graphical and tabular material.</li> <li>➤ Implemented grammatical, structural, syntactical, and stylistic edits.</li> <li>➤ Checked against all outstanding Technical Bulletins.</li> </ul> <p>Revision History Table</p> <ul style="list-style-type: none"> <li>➤ Changed column headings as follows:           <ul style="list-style-type: none"> <li>• “Revision” changed to “Version”</li> <li>• “Changes” changed to “Revisions”</li> </ul> </li> <li>➤ Date format standardized to mm/dd/yyyy</li> </ul> <p>Section 1</p> <ul style="list-style-type: none"> <li>➤ Minor edits</li> </ul> <p>Section 2.1</p> <ul style="list-style-type: none"> <li>➤ Minor edits</li> </ul> <p>Section 2.2.2</p>  |

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|         |                | <ul style="list-style-type: none"> <li>➤ Added references</li> <li>Section 3.1 <ul style="list-style-type: none"> <li>➤ Minor Edits</li> </ul> </li> <li>Section 3.1.5 <ul style="list-style-type: none"> <li>➤ RTC reference added</li> </ul> </li> <li>Section 3.1.6 <ul style="list-style-type: none"> <li>➤ RT AMP section rewritten</li> </ul> </li> <li>Section 3.2.1 <ul style="list-style-type: none"> <li>➤ MIS Corrections – added RT bilaterals</li> <li>➤ Correction of bid time frames, FRP information</li> </ul> </li> <li>Section 3.2.2 <ul style="list-style-type: none"> <li>➤ Correction to DAM results posting info.</li> </ul> </li> <li>Section 3.2.4 <ul style="list-style-type: none"> <li>➤ Added reference to RT bidding deadlines</li> </ul> </li> <li>Section 4.1 <ul style="list-style-type: none"> <li>➤ Added info re new Service Center feature.</li> <li>➤ Remove info on organization on Section 4 for readability</li> </ul> </li> <li>Section 4.3 <ul style="list-style-type: none"> <li>➤ MyNYISO information added.</li> </ul> </li> <li>Section 4.4-4.4.1 <ul style="list-style-type: none"> <li>➤ Updated to match revised Technical Bulletin 1</li> </ul> </li> <li>Section 4.4 <ul style="list-style-type: none"> <li>➤ Corrected references</li> </ul> </li> <li>Section 4.6 <ul style="list-style-type: none"> <li>➤ Corrections re MP Admins</li> </ul> </li> <li>Section 5 <ul style="list-style-type: none"> <li>➤ Updated to match actual Web page changes, new links, etc.</li> </ul> </li> <li>Sections 5.1 to 5.2 <ul style="list-style-type: none"> <li>➤ OASIS data updated and corrected; hub price ref removed.</li> </ul> </li> <li>Section 5.4.2 <ul style="list-style-type: none"> <li>➤ Pricing Data</li> </ul> </li> <li>Section 5.4.6 <ul style="list-style-type: none"> <li>➤ TSC Calculator reference removed</li> </ul> </li> <li>Section 5.5.5 <ul style="list-style-type: none"> <li>➤ Misc corrections</li> </ul> </li> </ul> |

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|         |                | <p>Section 5.7</p> <ul style="list-style-type: none"> <li>➤ Corrections to description of Daily Energy Report, MP RTC Corrections Report</li> </ul> <p>Section 5.7.2</p> <ul style="list-style-type: none"> <li>➤ Correction to Operating Studies- Physical Min Gen</li> </ul> <p>Section 5.7.3</p> <ul style="list-style-type: none"> <li>➤ Updated general information, error message description correction</li> </ul> <p>Section 5.10.2</p> <ul style="list-style-type: none"> <li>➤ SDX Updates (also, Section 5.9.5 removed)</li> </ul> <p>Section 5.10.3</p> <ul style="list-style-type: none"> <li>➤ ICAP Automated Market Updates</li> </ul> <p>Section 5.10.4</p> <ul style="list-style-type: none"> <li>➤ Added new section on TCC Automated Market</li> </ul> <p>Section 5.10.5</p> <ul style="list-style-type: none"> <li>➤ Added new section on DSS changes</li> </ul> <p>Section 5.10.6</p> <ul style="list-style-type: none"> <li>➤ MIS Updates, 2 new screen shots.</li> </ul> <p>Section 6.1.2</p> <ul style="list-style-type: none"> <li>➤ Misc corrections</li> </ul> <p>Section 6.1.4</p> <ul style="list-style-type: none"> <li>➤ Minor Edits</li> </ul> <p>Section 6.2.2</p> <ul style="list-style-type: none"> <li>➤ Minor Edits</li> </ul> <p>Section 6.2.3</p> <ul style="list-style-type: none"> <li>➤ Managing Users-updated for new TCC and Billing functions, hyperlink corrections.</li> </ul> <p>Section 6.2.4</p> <ul style="list-style-type: none"> <li>➤ Corrections/Edits-add TCCs, new screen shots</li> </ul> <p>Section 6.3</p> <ul style="list-style-type: none"> <li>➤ Technical Bulletin references added.</li> </ul> <p>Section 7.3.1</p> <ul style="list-style-type: none"> <li>➤ Technical Bulletin 11 revisions added.</li> </ul> <p>Section 7.3.2</p> <ul style="list-style-type: none"> <li>➤ Gen bid flags corrected</li> </ul> <p>Section 7.4</p> <ul style="list-style-type: none"> <li>➤ Technical Bulletin 55 revision added</li> </ul> |

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|         |                | <p>Section 7.5.1</p> <ul style="list-style-type: none"> <li>➤ Extensive load bid corrections, revised Technical Bulletin 6 incorporated.</li> </ul> <p>Section 7.5.2</p> <ul style="list-style-type: none"> <li>➤ MIS/Load Bid corrections</li> </ul> <p>Section 7.6</p> <ul style="list-style-type: none"> <li>➤ Corrections to deleting Transactions</li> </ul> <p>Section 7.6.1</p> <ul style="list-style-type: none"> <li>➤ Technical Bulletin 37 added, revisions on proxy bus section.</li> <li>➤ FRP info added</li> <li>➤ Transaction priority added.</li> <li>➤ Firm Transactions corrections</li> <li>➤ Display notes added.</li> <li>➤ New Technical Bulletin 20 added, delete old Technical Bulletin 20.</li> <li>➤ E-Tag info moved.</li> <li>➤ MIS functionality added.</li> <li>➤ Technical Bulletin 19 material corrected.</li> </ul> <p>Section 7.6.1</p> <ul style="list-style-type: none"> <li>➤ Multi-Hour Block Trans moved here.</li> </ul> <p>Section 7.6.2</p> <ul style="list-style-type: none"> <li>➤ FRP from Technical Bulletin 157 and Technical Bulletin 149 updated.</li> <li>➤ Start/Stop Time field info updated, new screen shots</li> <li>➤ Transaction search results edited, display descriptions edited.</li> <li>➤ Financial data edited.</li> </ul> <p>Section 7.6.3</p> <ul style="list-style-type: none"> <li>➤ Substantial overhaul to trust relationship info, new screenshot.</li> <li>➤ Transaction confirmation field descriptions revised, new screen shot.</li> </ul> <p>Section 7.7</p> <ul style="list-style-type: none"> <li>➤ Minor changes to VB section</li> </ul> <p>Section 7.7.2</p> <ul style="list-style-type: none"> <li>➤ Displays corrected, minor edits.</li> </ul> <p>Section 7.7.3</p> <ul style="list-style-type: none"> <li>➤ New display.</li> </ul> |

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|         |                | <ul style="list-style-type: none"> <li>➤ MIS field descriptions edited, second display replaced.</li> <li>➤ MIS messages corrected.</li> </ul> <p>Section 7.8</p> <ul style="list-style-type: none"> <li>➤ Prescheduled transactions queuing note corrected.</li> </ul> <p>Section 8.0</p> <ul style="list-style-type: none"> <li>➤ Extensive Upload/Download changes to match Technical Bulletin 157 for new Comprehensive Bid Management System changes.</li> <li>➤ Numerous template changes, functionality descriptions updated, parameter descriptions updated.</li> </ul>   |
| 8.1     | 08/24/2009     | <p>Global</p> <ul style="list-style-type: none"> <li>➤ Implemented stylistic and syntactic changes to ease processing of procedural material.</li> <li>➤ Revised external-document links to explicitly cite URLs from which documents may be accessed.</li> <li>➤ Updated terminology in keeping with MIS interface changes implemented for the March 2009 Comprehensive Bid Management System release, including, particularly, changing "qualified-to-bid privileges" to "authorization flags."</li> </ul> <p>Section 1.2</p> <ul style="list-style-type: none"> <li>➤ Added new section on Market Participant Responsibilities and Controls.</li> </ul> <p>Section 3.2.2</p> <ul style="list-style-type: none"> <li>➤ Added material on requirements for acceptance of trading hub transactions.</li> </ul> <p>Section 4.2</p> <ul style="list-style-type: none"> <li>➤ Clarified that permissions related to MIS are set via either privileges or authorization flags.</li> </ul> <p>Section 4.2.1</p> <ul style="list-style-type: none"> <li>➤ Added new section on changing privileges/authorizations, contact information, and classifications via the NYISO Administrator.</li> </ul> <p>Section 4.5</p> <ul style="list-style-type: none"> <li>➤ Modified to consolidate existing material and material removed from section 6.2.3 as well as incorporate Technical Bulletin 47.Section 5.10.6</li> <li>➤ Removed obsolete MIS flow diagrams (Figures 5-12, 5-13, and 5-14) along with corresponding textual material.</li> </ul> <p>Section 6</p> |

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|         |                | <ul style="list-style-type: none"> <li>➤ Reorganized and edited material to reflect MIS interface changes associated with the March 2009 Comprehensive Bid Management System release.</li> <li>➤ Removed references to display page designators in text and captions.</li> </ul> <p>Section 6.1.3</p> <ul style="list-style-type: none"> <li>➤ Removed due to obsolescence of MIS display diagram (Figure 6-1), resulting in re-numbering of subsequent subsections within section 6.1 and re-numbering of all subsequent figures within section 6.</li> </ul> <p>Section 6.2.3</p> <ul style="list-style-type: none"> <li>➤ Incorporated that portion of Technical Bulletin 134 focusing on generator authorization flags (formerly known as <i>qualified-to-bid</i> flags).</li> <li>➤ Removed material on changing generator physical parameters, substituting cross-reference to updated material on this subject in section 4.5.</li> </ul> <p>Section 7</p> <ul style="list-style-type: none"> <li>➤ Reorganized and edited material to reflect MIS interface changes associated with the March 2009 Comprehensive Bid Management System release.</li> <li>➤ Removed Figures for which near replicas are included in section 6, instead cross referencing such near replicas, and, in turn, renumbering Figures remaining in section 7.</li> <li>➤ Removed from text and captions display-page designator references.</li> </ul> <p>Section 7.3.1</p> <ul style="list-style-type: none"> <li>➤ Added Special Note outlining the implications of changing generator unit parameters subsequent to submitting Energy bids and specifying measures for ensuring that pre-existing Energy bids are associated with the appropriate generator unit parameters.</li> </ul> <p>Section 7.4</p> <ul style="list-style-type: none"> <li>➤ Incorporated that portion of Technical Bulletin 134 focusing on generator bid modes.</li> </ul> <p>Section 7.5.1</p> <ul style="list-style-type: none"> <li>➤ Incorporated Technical Bulletin 118 focusing on bidding, scheduling, and reporting station power.</li> </ul> <p>Section 7.6.1</p> <ul style="list-style-type: none"> <li>➤ Added PJM Linden VFT Scheduled Line as a facility requiring reservations.</li> <li>➤ Added new material on trading hubs and submitting related transaction bids.</li> </ul> |

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|         |                | <ul style="list-style-type: none"> <li>➤ Added reference to Technical Bulletin 184 in relation to Scheduling Transactions at the Proxy Generator Bus Associated with the Linden VFT Scheduled Line.</li> </ul> <p>Section 7.6.2</p> <ul style="list-style-type: none"> <li>➤ Added PJM Linden VFT Scheduled Line as a facility requiring reservations.</li> <li>➤ Clarified that in order to confirm a transaction, the source or sink must be the authorized user of that source or sink.</li> </ul> <p>Section 7.6.3</p> <ul style="list-style-type: none"> <li>➤ Added new material on user authorizations required in relation to the Source when the generator on a transaction is a trading hub.</li> <li>➤ Added new material on user authorizations required in relation to the Sink when the load on a transaction is a trading hub.</li> <li>➤ Added new material on extending source and sink confirmation trusts in relation to trading hub transactions.</li> <li>➤ Added new material on requirements for viewing trading hub transactions.</li> </ul> <p>Section 7.6.4</p> <ul style="list-style-type: none"> <li>➤ Added new section on reviewing a trading hub transaction summary.</li> </ul> <p>Section 7.7.5</p> <ul style="list-style-type: none"> <li>➤ In Input File Example of a Virtual Bid Limit Status Query, corrected format for Query Type criteria by removing quotation marks enclosing the words <i>CREDIT CHECK</i>.</li> </ul> <p>Section 8</p> <ul style="list-style-type: none"> <li>➤ Removed references to display-page designators.</li> </ul> <p>Section 8.3.11</p> <ul style="list-style-type: none"> <li>➤ Under the "Virtual Bidding Credit Check Parameters Example" heading: <ul style="list-style-type: none"> <li>• Corrected format for Query Type criteria in the Submission File Example by removing quotation marks enclosing the words <i>CREDIT CHECK</i>.</li> <li>• Changed second subheading to read "Response File Example" rather than "Submission File Example."</li> </ul> </li> </ul> |
| 8.2     | 10/07/2009     | <p>Global</p> <ul style="list-style-type: none"> <li>➤ Implemented stylistic edits as well as minor text edits to accurately reflect interface elements illustrated in screen shots.</li> </ul> <p>Section 4.3</p> <ul style="list-style-type: none"> <li>➤ Rewritten to reflect Website redesign.</li> </ul>   |

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|         |                | <p>Section 6.1</p> <ul style="list-style-type: none"> <li>➤ Added assigning privileges to users as a task performed by Market Participant Administrators.</li> </ul> <p>Section 6.2.3</p> <ul style="list-style-type: none"> <li>➤ Added material clarifying that generators bidding into the non-synchronous reserve market will not have their units scheduled for energy if their bids are accepted in the non-synchronous reserve market.</li> </ul> <p>Section 6.2.7</p> <ul style="list-style-type: none"> <li>➤ Edited the procedure on adding a new user to reflect that the ICAP flag provides the user with only viewing rights.</li> <li>➤ Expanded the Special Note following the procedure on adding a new user to cite the sources of detailed information on providing users with more than viewing rights in the ICAP and TCC markets.</li> <li>➤ Added new procedure on granting User privileges related to viewing/scheduling generator outages.</li> </ul> <p>Section 7</p> <ul style="list-style-type: none"> <li>➤ Reorganized to consolidate duplicative material and facilitate processing of procedural material, as follows: <ul style="list-style-type: none"> <li>• From the end of the procedure in section 7.7.3, removed material on changing a virtual bid, instead consolidating the material in section 7.7.4.</li> <li>• From the end of the procedures in sections 7.7.3 and 7.7.4, removed material on checking the status of virtual bids, instead consolidating the material in section 7.7.2.</li> </ul> </li> </ul> <p>Section 7.4.1</p> <ul style="list-style-type: none"> <li>➤ Added material outlining criteria that newly commissioned generators may use in declaring initial Proven Maximum Production Capability (PMPC).</li> <li>➤ Removed description and example of Bid Production Cost Guarantee.</li> </ul> <p>Section 7.6.3</p> <ul style="list-style-type: none"> <li>➤ Clarified that authorization to confirm transaction status is dependent on assignment of the DAM/HAM Transaction big flag to the User, and that affecting source and/or sink confirmation status requires that the generator and/or load bus, respectively, be linked to the User's account.</li> </ul> <p>Section 7.7.2</p> <ul style="list-style-type: none"> <li>➤ Added new material on Virtual Bidding Credit Checks.</li> </ul> |

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|         |                | <ul style="list-style-type: none"> <li>➤ Edited material on checking the status of virtual bids to reflect credit-related implications associated with the various bid status designations.</li> </ul> <p>Section 7.7.3</p> <ul style="list-style-type: none"> <li>➤ Updated Figure 7-34 and Figure 7-35 to reflect system interface changes.</li> <li>➤ Deleted Table 7.5 due to obsolescence.</li> <li>➤ Removed material related to obsolete system interface elements, specifically Virtual MWh Sum for All Zones and the Virtual MWh Limit for all Zones.</li> <li>➤ At the end of the procedure, inserted a Special Note cross referencing the locations in which material on virtual bidding credit checks, checking the status of virtual bids, and changing previously submitted virtual bids can be found.</li> </ul> <p>Section 7.7.4</p> <ul style="list-style-type: none"> <li>➤ Removed material in introductory text that is duplicated in procedural text.</li> <li>➤ At the end of the procedure, inserted a Special Note cross referencing the location in which material on virtual bidding credit checks can be found.</li> </ul> <p>Section 7.7.5</p> <ul style="list-style-type: none"> <li>➤ Added material on Virtual Bid Credit Status</li> <li>➤ Removed obsolete material on Virtual Bid Limit Status Query, including Table 7.6.</li> <li>➤ Expanded section on Downloading Virtual Load and/or Virtual Supply Schedules to clarify that the related process can be used to view information regarding Virtual Load and/or Virtual Supply bids that have been submitted but not yet evaluated by SCUC.</li> </ul> <p>Section 8.3.11</p> <ul style="list-style-type: none"> <li>➤ Deleted due to retirement of Download Virtual Bidding Credit Check Template, resulting in re-numbering of subsequent subsections within section 8.3</li> </ul> |
| 8.3     | 08/24/2010     | <p>Section 6.2.2</p> <ul style="list-style-type: none"> <li>➤ Updated the procedure on changing a User's password to reflect the need to log in to the MP Administrator's account.</li> </ul> <p>Section 6.2.3</p> <ul style="list-style-type: none"> <li>➤ Updated text and screen shots to reflect that MP Administrators cannot change generator contact information or the organizations/MP Administrators assigned to generators.</li> </ul>   |

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|         |                | <p>Section 6.2.4</p> <ul style="list-style-type: none"> <li>➤ Updated text and screen shots to reflect that MP Administrators cannot change LSE contact information or the organizations/MP Administrators assigned to LSEs.</li> </ul> <p>Section 6.2.6</p> <ul style="list-style-type: none"> <li>➤ Updated text and screen shots to reflect that MP Administrators cannot change organization contact information or the MP Administrators assigned to organizations.</li> </ul> <p>Section 6.2.7</p> <ul style="list-style-type: none"> <li>➤ Added new procedure on granting user privileges related to viewing/updating Cost Data and viewing References.</li> </ul> <p>Section 7.4.1</p> <ul style="list-style-type: none"> <li>➤ Updated procedure text and Figures 7-6 and 7-10 to reflect changes secondary to Increasing Bids in Real Time (IBRT) deployment.</li> </ul> <p>Section 7.4.2</p> <ul style="list-style-type: none"> <li>➤ Updated Figure 7-13 to reflect addition of <i>Fuel Type</i> and <i>Burdened Fuel Price</i> fields secondary to Reference Level Software (RLS) and IBRT deployment.</li> </ul> <p>Section 7.5.1</p> <ul style="list-style-type: none"> <li>➤ Updated to clarify that the Forecast MW and Price Cap MW values must each be a whole number greater than zero</li> </ul> <p>Section 8.2.1</p> <ul style="list-style-type: none"> <li>➤ Updated data dictionary and template to include <i>fuel_type_id</i> and <i>burdened_fuel_price</i>.</li> </ul> <p>Section 8.2.3</p> <ul style="list-style-type: none"> <li>➤ Updated the Load Bids Data Dictionary to reflect that the Forecast MW and Fixed MW values must each be a whole number.</li> <li>➤ Updated the Delete Load Bids Data Dictionary to reflect that the Forecast MW, Fixed MW, Price Cap 1 MW, Price Cap 2 MW, and Price Cap 3 MW values must each be a be a whole number.</li> </ul> <p>Section 8.2.7</p> <ul style="list-style-type: none"> <li>➤ Updated data dictionary and template to include <i>fuel_type_id</i> and <i>burdened_fuel_price</i>.</li> </ul> <p>Section 8.3.1</p> <ul style="list-style-type: none"> <li>➤ Updated template to include <i>fuel_type_id</i> and <i>burdened_fuel_price</i>.</li> </ul> <p>Section 8.3.2</p> |

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|         |                | <ul style="list-style-type: none"> <li>➤ Updated template to include fuel_type_id and burdened_fuel_price.</li> </ul>   |
| 8.4     | 10/21/2010     | <p>Section 6.2.7</p> <ul style="list-style-type: none"> <li>➤ Added new procedure on granting user privileges related to viewing/updating Transmission users of the Outage Scheduler Application (TOA).</li> <li>➤ Added new procedure on granting user privileges related to the Credit Management System (CMS).</li> <li>➤ Deleted Figure 6.23 as duplicate of Figure 6-18.</li> </ul>  |
| 8.5     | 2/16/2011      | <p>Section 5.5.5</p> <ul style="list-style-type: none"> <li>➤ Updated for retirement of prescheduled transactions capability</li> </ul> <p>Section 7.3.1</p> <ul style="list-style-type: none"> <li>➤ Min Run Time and cost recovery (e.g. start-up) clarification</li> </ul> <p>Section 7.6.2</p> <ul style="list-style-type: none"> <li>➤ Updated for retirement of prescheduled transactions capability</li> </ul> <p>Section 7.6.3</p> <ul style="list-style-type: none"> <li>➤ Updated for retirement of prescheduled transactions capability</li> </ul> <p>Section 7.7.1</p> <ul style="list-style-type: none"> <li>➤ Updated for Virtual Bidding Registration changes</li> </ul> <p>Section 7.8</p> <ul style="list-style-type: none"> <li>➤ Deleted in total, including all subsections,</li> </ul> <p>Section 8.1.2</p> <ul style="list-style-type: none"> <li>➤ Updated for retirement of prescheduled transactions capability</li> </ul> <p>Section 8.2.10</p> <ul style="list-style-type: none"> <li>➤ Deleted in total</li> </ul> <p>Section 8.2.11</p> <ul style="list-style-type: none"> <li>➤ Deleted in total, including all subsections,</li> </ul> <p>Section 8.3.11</p> <ul style="list-style-type: none"> <li>➤ Deleted resulting in re-numbering of subsequent subsection within section 8.3.</li> </ul> <p>Section 8.3.12</p> <ul style="list-style-type: none"> <li>➤ Deleted resulting in re-numbering of subsequent subsection within section 8.3.</li> </ul> |
| 8.6     | 5/23/2011      | Section 3   |

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|         |                | <ul style="list-style-type: none"> <li>➤ Several updates to support transaction scheduling changes throughout the hour.</li> </ul> <p>Section 6.2.7</p> <ul style="list-style-type: none"> <li>➤ Added reference to new Review Transaction Bids privilege.</li> </ul> <p>Section 7.6</p> <ul style="list-style-type: none"> <li>➤ Updated for new procedures of submitting and reviewing external transaction bids.</li> </ul> <p>Section 8</p> <ul style="list-style-type: none"> <li>➤ Updated for modifications to transaction templates.</li> </ul>  |
| 8.7     | 5/30/2012      | <p>Section 7.6.1</p> <ul style="list-style-type: none"> <li>➤ Updated to reflect that NYISO now expects a NERC Tag to be submitted to the tagging authority no later than 75-minutes prior to the hour.</li> <li>➤ Removed an outdated note about restrictions to the external transaction bid curves.</li> <li>➤ Updated screen shots with the new NERC Tag Status value.</li> </ul> <p>Section 8</p> <ul style="list-style-type: none"> <li>➤ Updated two External Transaction upload/download templates to include the new NERC Tag Status value.</li> </ul>  |
| 8.8     | 10/02/2012     | <p>Section 1.1</p> <ul style="list-style-type: none"> <li>➤ Added description of new Section 9. of document</li> </ul> <p>Section 4.1</p> <ul style="list-style-type: none"> <li>➤ Updated Figures 4-1 and 4-4 for Service Manager upgrade. Deleted Figures 4-2 and 4-3.</li> </ul> <p>Section 4.5</p> <ul style="list-style-type: none"> <li>➤ Added Regulation Movement Response Rate</li> </ul> <p>Section 5.4.5</p> <ul style="list-style-type: none"> <li>➤ Added Regulation Movement prices to list of Hour-Ahead and Real-Time Market prices posted on OASIS</li> <li>➤ Clarified that “Regulation” price is for Regulation Capacity</li> </ul> <p>Section 5.7.3</p> <ul style="list-style-type: none"> <li>➤ Removed paragraph on Bidding and Scheduling Error Messages. (Replaced with new Section 9).</li> </ul> <p>Section 5.10.1</p> <ul style="list-style-type: none"> <li>➤ Added a reference to new Section 9 for information on Bidding and Scheduling Error Messages</li> </ul> <p>Section 5.10.6</p> |

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|         |                | <ul style="list-style-type: none"> <li>➤ Removed reference to TB178 for information on Bidding and Scheduling Error Messages</li> </ul> <p>Section 6.2.3</p> <ul style="list-style-type: none"> <li>➤ Updated Figure 6-8 (Generator Limits, Authorization Flags, and Generator Physical Attributes) for FERC Order 755.</li> </ul> <p>Section 7.4</p> <ul style="list-style-type: none"> <li>➤ Removed reference to (retired) TB44. Replaced with reference to Outage Scheduling Manual &amp; Outage Scheduler User's Guide.</li> <li>➤ Removed reference to (retired) TB 145. Replaced with reference to Transmission &amp; Dispatching Operations Manual.</li> </ul> <p>Section 7.4.1</p> <ul style="list-style-type: none"> <li>➤ Updated Figure 7-8 (Ancillary Services Data) for FERC Order 755</li> <li>➤ Updated regulation bid information</li> <li>➤ Updated Figure 7-9 (Generator Bid Results display) for FERC Order 755</li> <li>➤ Updated Figure 7-10 (Generator Bid Display) for FERC Order 755</li> <li>➤ Removed reference to (retired) TB 145 for information on 15-minute scheduled internal generation. Replaced with reference to Transmission &amp; Dispatching Operations Manual.</li> </ul> <p>Section 7.4.2</p> <ul style="list-style-type: none"> <li>➤ Updated Figure 7-12 (Generator Bid Results display) for FERC Order 755</li> <li>➤ Updated Figure 7-13 (Generator Bid Modifications display) for FERC Order 755</li> </ul> <p>Section 8</p> <ul style="list-style-type: none"> <li>➤ Updated Upload/Download Batch Procedures for FERC Order 755</li> </ul> <p>Section 9</p> <ul style="list-style-type: none"> <li>➤ Added new section with information on format of bidding and scheduling error messages</li> </ul> <p>General</p> <ul style="list-style-type: none"> <li>➤ Replaced Market Monitoring &amp; Performance (MMP) with Market Mitigation &amp; Analysis (MMA)</li> <li>➤ Replaced Customer Relations with Stakeholder Services</li> </ul> |
| 8.8     | 05/21/2013     | Section 7.6.1   |

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|         |                | <ul style="list-style-type: none"> <li>➤ Added PJM HTP Scheduled Line as a facility requiring reservations.</li> <li>➤ Updated Technical Bulletins. TB 223 replaced TB 141, 162 and 184 and included HTP.</li> </ul> <p>Section 7.6.2</p> <ul style="list-style-type: none"> <li>➤ Added PJM HTP Scheduled Line as a facility requiring reservations.</li> </ul>  |
| 8.9     | 06/20/2013     | <p>Section 7.6.1</p> <ul style="list-style-type: none"> <li>➤ Added new material on External Transaction Bidding Credit Checks.</li> </ul> <p>Section 7.6.2</p> <ul style="list-style-type: none"> <li>➤ Added new material on External Transaction Credit Checks.</li> </ul>   |
| 9.0     | 11/13/2015     | <p>General</p> <ul style="list-style-type: none"> <li>➤ Updated references to (retired) technical bulletins TB-027, TB-032, TB-040, TB-074, TB-086, TB-119, TB-120, TB-121, TB-122, TB-125, and TB-152. Replaced with updated references.</li> </ul> <p>Section 3.3</p> <ul style="list-style-type: none"> <li>➤ Incorporated TB-062 focusing on the meaning of Locational Based Marginal Pricing.</li> </ul> <p>Section 7.3.1</p> <ul style="list-style-type: none"> <li>➤ Incorporated TB-203 focusing on minimum run times extending past the commitment period, late day start commitments.</li> </ul> <p>Section 7.6.1</p> <ul style="list-style-type: none"> <li>➤ Added new material regarding Transaction Bidding Credit Check timing.</li> </ul> |
| 9.1     | 12/16/2015     | <p>Section 5.4.5</p> <ul style="list-style-type: none"> <li>➤ Included SENY as a posted Day-Ahead Market, Hour Ahead Market and Real-Time Market Ancillary Service price</li> </ul> <p>Section 5.7.3</p> <ul style="list-style-type: none"> <li>➤ Included Southeastern New York in the reference to the NYISO Locational Reserve Requirements</li> </ul>   |
| 9.2     | 06/23/2016     | <p>Section 1.1</p> <ul style="list-style-type: none"> <li>➤ Updated Section 4 to indicate digital certificates must be NAESB compliant</li> </ul>   |

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|         |                | <p>Section 1.2</p> <ul style="list-style-type: none"> <li>➤ Updated Market Participant Responsibilities to include compliance with FERC Order 676-H in using NAESB compliant digital certificates</li> </ul> <p>Section 4.4</p> <ul style="list-style-type: none"> <li>➤ Updated to include how to obtain, link, and use a NAESB compliant digital certificate for access to NYISO applications</li> </ul> <p>Section 6.1.4</p> <ul style="list-style-type: none"> <li>➤ Updated to reference the requirement of a NAESB compliant digital certificate</li> </ul> <p>Section 6.2.2</p> <ul style="list-style-type: none"> <li>➤ Updated with new procedures for changing MIS Administrator and User Passwords</li> </ul> <p>Section 7</p> <ul style="list-style-type: none"> <li>➤ Updated to reference the new Self-Service Account Management (SSAM) application for changing MIS User passwords</li> </ul> <p>Section 7.2.2</p> <ul style="list-style-type: none"> <li>➤ Updated with new procedures for changing MIS User Passwords</li> </ul> <p>Section 8.1.1</p> <ul style="list-style-type: none"> <li>➤ Added detail on use of a NAESB compliant digital certificate when using the upload download process</li> </ul> |
| 9.3     | 08/23/2016     | <p>Section 1.2</p> <ul style="list-style-type: none"> <li>➤ Added new section on Behind the Meter Net Generation (BTM:NG) Resource's injection limit</li> </ul> <p>Section 7.4</p> <ul style="list-style-type: none"> <li>➤ Updated to include BTM:NG Resources in bid entry</li> </ul>   |
| 9.4     | 09/14/2016     | <p>Section 5.4.5</p> <ul style="list-style-type: none"> <li>➤ Updated to reflect zonal clearing prices as a result of the changes related to Comprehensive Scarcity Pricing</li> </ul>  |
| 9.5     | 11/16/2016     | <p>Section 3.1.5</p> <ul style="list-style-type: none"> <li>➤ Added clarification that a bid into the RT market is an indication that the resource is able to start within 30-minutes</li> </ul>  |
| 10.0    | 06/08/2018     | <p>Section 6.2.2</p> <ul style="list-style-type: none"> <li>➤ Updated to reflect additional validation when changing password.</li> <li>➤ Updated Figure 33: Password Change Display</li> <li>➤ Removed obsolete references in section 4.1</li> </ul>   |

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|         |                | <ul style="list-style-type: none"> <li>➤ Updated to reflect Interactive Pricing Map under Pricing Data as part of the Granular Pricing to assist Reforming the Energy Vision (REV) development opportunities and Distributed Energy Resource (DER) participation.</li> </ul>  |
| 10.1    | 12/17/2018     | <p>Section 7.4.1</p> <ul style="list-style-type: none"> <li>➤ Updated to reflect changes for units trying to bid above \$1000 as per FERC Order #831.</li> <li>➤ Updated to reflected Start-up bidding requirement for ISP unit or a unit with RMR contract.</li> <li>➤ Updated to remove information that already resides in the JESS user guide</li> </ul>  |
| 11.0    | 05/14/2020     | <p>Global Updates</p> <ul style="list-style-type: none"> <li>➤ Updated logo and formatting</li> <li>➤ Updated and corrected broken hyperlinks</li> <li>➤ Updated screenshots</li> </ul> <p>Section 1.2</p> <ul style="list-style-type: none"> <li>➤ Added language to describe responsibilities of Market Participants engaged in dual participation</li> <li>➤ Removed requirement for Responsible Interface Parties and Curtailment Service Providers to report Dual Participation to the NYISO</li> </ul> <p>Section 7.4</p> <ul style="list-style-type: none"> <li>➤ Added language to describe bidding for Resources engaged in dual participation</li> <li>➤ Removed requirement for Responsible Interface Parties and Curtailment Service Providers to report Dual Participation to the NYISO</li> </ul>   |
| 11.1    | 07/06/2020     | <p>Ministerial Updates</p> <ul style="list-style-type: none"> <li>➤ Updated figure captions and cross references</li> <li>➤ Updated tables of contents and figures</li> </ul> <p>Section 5.4.6</p> <ul style="list-style-type: none"> <li>➤ Removed language pertaining to retired pricing map software</li> </ul> <p>Section 5.5</p> <ul style="list-style-type: none"> <li>➤ Removed language pertaining to visualization and API software due to software's retirement on June 1, 2020</li> </ul> <p>Section 7.3.1</p> <ul style="list-style-type: none"> <li>➤ Added special note to require BTM:NG and ESR resources to submit prescribed unit commitment data</li> </ul> <p>Section 7.4</p> <ul style="list-style-type: none"> <li>➤ Added Figure 55: Allowed ESR Bid Modes</li> </ul> <p>Section 7.4.1</p> |

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|         |                | <ul style="list-style-type: none"> <li>➤ Updated screenshot for Figure 56: Generator and Market Specification Data display</li> <li>➤ Added ESR language for submitting generator bids</li> <li>➤ Added Opportunity Cost</li> <li>➤ Updated Screenshot for Figure 57: Energy Bid and Bid Curve Data</li> <li>➤ Added language to Energy Bid and Bid Curve Data for ESRs</li> </ul> <p>Section 8.2.1</p> <ul style="list-style-type: none"> <li>➤ Added ESR parameters to the data dictionary</li> </ul>                                 |
| 11.2    | 06/16/2021     | <p>Section 1.2</p> <ul style="list-style-type: none"> <li>➤ Removed bullet stating MPs with Wind Generators are responsible to register/pay with the NYISO's wind forecasting service as required by NYISO Tariff</li> </ul>  |
| 11.3    | 10/22/2021     | <p>Section 7.4.</p> <ul style="list-style-type: none"> <li>➤ Added Language for ESR bidding Self Schedule mode when part of a CSR.</li> <li>➤ Updated Screenshot for Figure 57: Energy Bid and Bid Curve Data</li> <li>➤ Added language to Energy Bid and Bid Curve Data for ESRs</li> </ul> <p>Section 8.2.1.</p> <ul style="list-style-type: none"> <li>➤ Added CSR parameters to the data dictionary</li> </ul> <p>Section 8.2.6</p> <ul style="list-style-type: none"> <li>➤ Added CSR parameters to the data dictionary</li> </ul> |
| 12.0    | 04/16/2024     | <p>Global</p> <ul style="list-style-type: none"> <li>➤ Added the term ‘Aggregation(s)’ and rules pertaining to the DER Participation Model when applicable.</li> <li>➤ Added “Aggregator” as a new Market Participant and included language about its role, the DER Participation Model and references to the Aggregation Manual for more information.</li> </ul>   |
| 13.0    | 06/18/2024     | <p>Global</p> <ul style="list-style-type: none"> <li>➤ Added updates and references to “withdrawal-eligible generators” where applicable to reflect the new rules to allow withdrawal-eligible generators to be the sinks of internal bilateral transactions.</li> </ul>  |
| 14.0    | 11/20/2024     | <p>Section 7.4.</p> <ul style="list-style-type: none"> <li>➤ Removed Language for ESR Outage Type Reporting</li> </ul>  |

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|         |                | <ul style="list-style-type: none"> <li>➤ Updated Screenshot for Figure 57: ESR Outage Type removed</li> </ul> <p>Section 8.2.1.</p> <ul style="list-style-type: none"> <li>➤ Removed ESR Outage Type from the Data Dictionary</li> <li>➤ Removed ESR Outage Type from Generator Bid Parameters</li> <li>➤ Removed ESR Outage Type from Generator Bid Response Parameters</li> <li>➤ Added language to Energy Bid and Bid Curve Data for ESRs</li> </ul>   |
| 15.0    | 12/03/2024     | <p>Section 5.2</p> <ul style="list-style-type: none"> <li>➤ Updated to include Finance APIs</li> </ul> <p>Section 5.7</p> <ul style="list-style-type: none"> <li>➤ Added new section for Emissions Data</li> </ul> <p>Section 5.7.1</p> <ul style="list-style-type: none"> <li>➤ Added language pertaining to Implied Marginal Emission Rates (IMER)</li> </ul> <p>Section 5.7.2</p> <ul style="list-style-type: none"> <li>➤ Added language pertaining to Average Emission Rates (AER) calculator functionality</li> </ul> <p>Section 5.11.2</p> <ul style="list-style-type: none"> <li>➤ Updated to include Finance APIs</li> </ul> <p>Section 7.4</p> <ul style="list-style-type: none"> <li>➤ Updated to accommodate new bidding rules for CSR</li> </ul> |
| 16.0    | 05/29/2025     | <p>Section 7.4.1</p> <ul style="list-style-type: none"> <li>➤ Clarified language regarding BTM:NG Resources increasing Host Load on HAM bids</li> </ul>   |
| 17.0    | 09/19/2025     | <p>Section 4.6</p> <ul style="list-style-type: none"> <li>➤ Clarified language regarding Changing Market Participant Administrators</li> </ul> <p>Section 8.2.6.</p> <ul style="list-style-type: none"> <li>➤ Removed ESR Outage Type from the Delete Generator Bids Data Dictionary</li> </ul> <p>Figure 60</p> <ul style="list-style-type: none"> <li>➤ Removed ESR Outage Type in Generator Bid Display</li> </ul>   |

# 1. Introduction to the Market Participant User's Guide

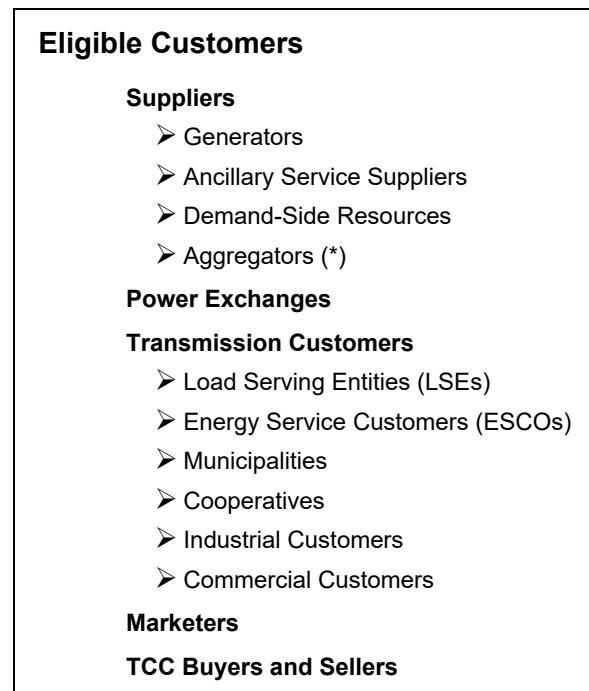
## 1.1. Introduction

This Guide provides Market Participants with the information needed to participate in New York Independent System Operator (NYISO) Energy Markets.

### ***Market Participants***

Market Participants include all entities that produce, transmit, sell, and/or purchase for resale – capacity, energy, and ancillary services in the NYS wholesale market. Figure 1 identifies the categories of Market Participants considered in this Guide.

**Figure 1: Market Participants**



(\*) An Aggregator is a Supplier that offers Capacity, Energy and/or Ancillary Services for an Aggregation. An Aggregation is a Resource, comprised of Distributed Energy Resources (DER) that satisfy the minimum eligibility requirements and performance obligations required to participate in the NYISO-administered Energy, Ancillary Services, and Installed Capacity markets through the DER participation model. For more information about DER participation model please refer to the NYISO Aggregation Manual, available at <https://www.nyiso.com/manuals-tech-bulletins-user-guides>.

Within each group that is called a "Market Participant," there are varieties of positions that will interface with the NYISO (Market Participant roles). This Guide provides specific information for those who want to know more about:

- NYISO organization and mission (General)
- Completing forms needed to be admitted into the NYISO Energy Markets (Manager)
- Setting-up administrative files needed to participate in the NYISO (Administrator)
- Submitting/modifying bids for capacity, energy and other services (Trader)

While all Market Participants are urged to read all sections, some sections are aimed at those who will perform certain tasks. The following is a brief description of each of the main sections of the Guide.

### ***Section 2. NYISO and the Electricity Market***

This section describes the general and specific duties of the NYISO.

- Installed Capacity (ICAP)
- Energy and Bilateral Transactions
- Ancillary Services
- Transmission Congestion Contracts (TCCs)

Each market description includes the market's definition, its purpose, the responsibilities of NYISO in administering the market, and Market Participant eligibility requirements.

### ***Section 3. NYISO Market Mechanics***

This section describes the general market structure and market processes in terms of the following major components:

- Annual Planning Process
- Week-Ahead Operation
- Day-Ahead Operation
- Real-Time Scheduling

The cornerstone of the NYISO market operation is Locational Based Marginal Pricing (LBMP). The importance of LBMP and its components are covered in this section, along with some basic information about the management of risk as a player in the market.

### ***Section 4. NYISO Stakeholder Services***

This section provides information on contacting the NYISO, some key terms, an overview of the NYISO Web site, how to obtain and use the required North American Energy Standards Board (NAESB) compliant digital certificates, the process for updating generator or Aggregation physical parameters, and changing Market Participant Administrators.

## ***Section 5. OASIS and Market Data***

This section covers accessing the public information that is available to anyone via the NYISO Web site. The information in this section can be accessed by either of two methods. The first method is “view only” and is known as LBMP Results. The second method is downloadable and is known as LBMP Results - CSV format. Items that can be viewed or downloaded can range from: LBMP prices for Day-Ahead through Real-time; NYISO Load Forecasts; Available Transfer Capability (ATC) and Total Transfer Capability (TTC); Transmission Service Charges (TSC); LBMP Zonal Maps; Actual Load; Security Constrained Unit Commitment (SCUC) Forecast data; Transmission Outage Schedules; Interface Flows; Dispatcher Notices; Primary holders of TCC; Bid and Validation messages, to Contacts for Load Serving Entities (LSE).

## ***Section 6. Market Participant Administrator Tasks***

This section provides systematic instructions on using the NYISO Market Information System (MIS). The Administrator’s functions will be discussed. Administrators will learn how to do the following:

- Define organizations, Administrators, generators, Aggregations, loads and LSEs
- Assign Authorization Flags to Users
- Define and maintain individual User accounts
- Assign User rights to access specific generators, Aggregations and loads
- Control access through password control

## ***Section 7. Market Participant User Tasks***

This section provides systematic instructions on using the NYISO Web page (<https://www.nyiso.com/>) to submit/review/modify bids and schedules for the following:

- Generator, Aggregation and Ancillary Services
- Loads
- Bilateral Transactions

Also included, is an overview of the bid displays along with screenshots of the displays used by Market Participant Users to interact with the MIS. View-only displays with administrative information are also described.

## ***Section 8. Upload/Download Batch Procedures***

This section provides directions for downloading NYISO Web page from the NYISO Internet Site, entering data off-line, and then uploading the files back onto the NYISO Internet Site. The section focuses on procedures specifically related to the uploading and downloading of bid data.

Because the process of entering data for multiple bids can be cumbersome, this process will enable Market Participants to develop their own systems for streamlining the data entry and review process.

### ***Section 9. Bidding and Scheduling Error Messages***

This section provides information on the format for error messages that are displayed to Market Participants when an issue is encountered submitting, reviewing, updating, deleting, or downloading various data, either through Web-Based Market Interactions or with Upload/Download Batch Procedures.

## **1.2. Market Participant Responsibilities and Controls**

The NYISO's processing of transactions and the controls surrounding the processing of transaction data were designed under the assumption that certain internal controls would be implemented by Market Participants. The following list describes the nature of such controls that should be administered by Market Participants to complement the NYISO's controls. The following list should not be viewed as an exhaustive list of all internal controls that should be applied by Market Participant organizations. Other internal controls may be required at Market Participant organizations. Market Participant auditors should consider whether the following controls are in place and whether additional controls are warranted.

- Market Participants are responsible for ensuring that their NYISO registration information, including credit information, has been submitted completely and accurately.
- Market Participants are responsible for ensuring that a designated MIS Administrator is responsible for authorizing other MIS users and determining which of the applicant's data may be shared with other MIS administrators.
- Market Participants are responsible for ensuring that user information accuracy is maintained.
- Market Participants are responsible for advising the NYISO of corporate affiliation information, and for updating the information as appropriate, with additional copies sent to the Credit Department.
- Market Participants are responsible for registering their organization, or its Parent, on the NAESB Electric Industry Registry (EIR), and must notify the NYISO of its EIR Entity Name and/or EIR Record ID so that the NYISO can associate it with the appropriate MIS Organization and MIS Administrator account.
- Market Participants are responsible for purchasing NAESB compliant digital certificates that include the EIR Entity Name in the certificate Subject, exactly as it appears in the EIR, for each user requiring access to NYISO applications.
- Market Participants are responsible for linking their individual user NAESB compliant certificate to their MIS user account and for maintaining a valid certificate.
- Market Participants are responsible for ensuring that virtual bidding contacts are furnished to the NYISO in registration packages.
- Market Participants are responsible for designating and setting up end users within the organization who are responsible for bidding/scheduling with accounts linked to the Load Bus/Generators/Aggregations.

- Market Participants are responsible for ensuring that a confirmation via fax or e-mail will be provided after advising the NYISO by telephone of changes or additions to the Market Participant's MIS Administrators or billing administrators.
- Market Participants are responsible for ensuring that a designated DSS Super Administrator is responsible for authorizing DSS Subject Area Administrator or DSS user accounts and for ensuring that account information accuracy is maintained.
- For requests initiated by Market Participants, Market Participants must provide written authorization to deactivate LSEs and loads in the MIS.
- Market Participants must provide written notice of any customer name change and provide copies of Certificates of Amendment filed with the appropriate state agencies, with State acknowledgements, and complete an amended registration packet.
- Market Participants must ensure that the timely written notification of changes in the designations of individuals authorized to instruct the NYISO regarding activities on behalf of the Market Participant is sent to the NYISO Stakeholder Services Group.
- Market Participants must review all member data distributed (or posted) by the NYISO to Market Participants, to ensure its accuracy and completeness, and immediately report any discrepancies to NYISO personnel.
- Market Participants are responsible for advising the NYISO (and providing updated information, as appropriate) of expected activity levels, and of any adverse business development necessary to enable accurate credit evaluation.
- Market Participants must advise the NYISO via e-mail, fax, hard copy, or phone of any request to change Generator/Aggregation parameters and if required, go through the Interconnection Agreement process again. (e.g., increases to a Generator's /Aggregation's upper operating limit).
- Market Participants must provide written authorization to the NYISO to request the addition of new load buses to LSEs.
- Market Participants must ensure that all data (including but not limited to bids, offers, installed capacity forecasts, actual information, and other capacity resource information) is provided completely, accurately, in accordance with established guidelines, and on a timely basis.
- Market Participants must provide an authorized request for (1) zonal price capped load bus bidding, as well as documentation from the TO, confirming that load is being served by the Market Participant in the zone where a zonal price-capped load is requested, or (2) verification through current bidding or billing information that the Market Participant is serving load in the zone where a zonal price-capped load is requested.
- Market Participants must ensure that complete and timely information is submitted to the NYISO for all energy transactions via the NYISO's Market Information Services (MIS).
- Market Participants must ensure that all load obligations, as reported by the MIS, are complete, accurate, and provided on a timely basis.
- Market Participants must ensure that transmission requests are processed via OASIS and external transactions are scheduled on a timely basis.
- Market Participants are responsible for responding to Market Mitigation and Analysis (MMA) requests accurately and on a timely basis.
- Market Participants must ensure that all metering data provided is complete, accurate, and provided on a timely basis and are responsible for verifying the completeness and accuracy of their metering information.

- Transmission Owners are responsible for reporting transmission line deratings to the NYISO to ensure accurate calculation of inter-zonal congestion charges.
- Market Participants are responsible for reviewing their local error files to ensure that schedule and bid submissions were successfully submitted.
- Market Participants are responsible for ensuring that controls over physical and logical access to the NYISO's information systems via terminals at Market Participant locations are established, monitored and maintained by their organization. Logical security controls include but are not limited to controls surrounding IDs and passwords.
- Market Participants are responsible for ensuring that timely written notification of changes in their organization (i.e., personnel) requiring access to the NYISO's information systems is sent to the NYISO Stakeholder Services Group.
- Market Participants are responsible for ensuring that only appropriate users are authorized to access customer data.
- Market Participants are responsible for identifying an individual as their main contact and an individual as their billing contact, and for providing the NYISO with a Bank Account Information form signed by the billing contact and a second individual.
- Market Participants are responsible for ensuring that bank account changes are provided via the Bank Account Information form signed by both their billing contact and another appropriate individual on a timely basis.
- Market Participants are responsible for reviewing for data submission errors and timely reporting corrections to NYISO in order to correct them.
- Market Participants are responsible for independently reviewing their data that was used to generate their settlement statements that are distributed by the NYISO, to ensure that all input data was accurate and complete, and to immediately report any discrepancies to NYISO personnel.
- Market Participants are responsible for ensuring that their preliminary settlement results supplied by the NYISO in the Decision Support System (DSS) are independently reviewed and updated in a timely manner by appropriate personnel.
- Market Participants are responsible for reviewing the charge or credit calculations on their respective settlement statements supplied by the NYISO for their organizations' independent review, to ensure the propriety of the values and to immediately report any discrepancies to NYISO personnel.
- Market Participants are responsible for reviewing payments they make or receive against the billing statements provided by the NYISO, and advising the NYISO of any discrepancies on a timely basis.
- Market Participants are responsible for submitting metering data to the NYISO within 75 days of an EDRP or SCR event, to receive payment for its actions, and reviewing that data in the Settlements Data Exchange.
- A BTM:NG Resource's injection limit is first verified in the registration process when the BTM:NG Resource proposes to enter the market. During that process, a BTM:NG Resource must demonstrate that it has a valid interconnection agreement that specifies the injection limit (i.e., MW amount it is permitted to inject into the distribution or transmission system). Any updates to the injection limit must be approved by both the NYISO and the Transmission Owner to whose system the BTM:NG Resource is connected.
- During initial registration of a new Resource, Market Participants, except Responsible Interface Parties and Curtailment Service Providers, are responsible for informing NYISO if that

Resource intends to engage in dual participation in the NYISO markets and with other distribution level commitments, and must provide any support documentation, as requested.

- Market Participants, except Responsible Interface Parties and Curtailment Service Providers, must inform NYISO if a Resource currently participating in the NYISO markets elects to begin dual participating in a separate non-wholesale commitment prior to engaging in said commitment.
- Market Participants, except Responsible Interface Parties and Curtailment Service Providers, must ensure that Resources engaged in dual participation are appropriately offered into the wholesale markets to reflect any non-wholesale (*e.g.*, retail) obligations and comply with all market rules for the services offered to the wholesale market.
- Market Participants, except Responsible Interface Parties and Curtailment Service Providers, are responsible for informing NYISO when a Resource engaged in dual participation elects to stop serving a retail commitment.
- Market Participants, except Responsible Interface Parties and Curtailment Service Providers, are responsible for informing NYISO when a Resource elects to exit the NYISO wholesale market to be a retail load modifier.

## **2. NYISO and the Electricity Market**

### **2.1. NYISO Duties**

The principal mission of the NYISO is to direct the operation of the New York State (NYS) power system in order to supply power to loads while maintaining safety and reliability in compliance with the reliability rules established by the New York State Reliability Council (NYSRC). The NYSRC rules incorporate standards and operating policies enacted by the North American Electric Reliability Council (NERC) as well as guidelines and procedures enacted by the Northeast Power Coordinating Council (NPCC).

The NYISO facilitates open access to the NYS transmission system, provides non-discriminatory access for all Market Participants, and allows meaningful involvement by Market Participants in the operation of the NYISO.

#### ***General***

The NYISO's duties are determined by the provisions of the NYISO Agreement, the NYISO/Transmission Owner (NYISO/TO) Agreement, the NYISO/NYSRC Agreement, its Federal Energy Regulatory Commission (FERC) accepted tariffs, and the reliability rules (rules, standards, procedures, and protocols) established by the NYSRC. The NYISO's specific duties are enumerated in these documents. The NYISO implements all of its responsibilities under non-discriminatory terms and conditions and impartially administers the NYISO Tariffs to all Market Participants.

#### ***Operation***

The NYISO Tariffs require that entities entering into a service agreement with the NYISO comply with the reliability rules and NYISO Procedures, and furnish required data to the NYISO. The NYISO has authority to control generators, Aggregations, transmission facilities, and other facilities required to operate the NYS power system in a reliable manner.

#### ***Transmission Service and Wholesale Market***

The NYISO provides transmission service and ancillary services over the NYS transmission system in compliance with the NYISO Tariffs. The NYISO facilitates a Day-Ahead Market (DAM) and a Real-Time Market using Market Participants' bid data.

### ***Maintenance Scheduling***

The NYISO coordinates planned outage schedules for generators and Aggregations that are under contract to provide ICAP (Installed Capacity) to the NYS power system. The NYISO also approves requests for transmission outages on those transmission facilities under NYISO operational control that are defined in Appendix A-1 of the NYISO/TO Agreement.

### ***Capacity Requirements***

The NYISO establishes locational capacity requirements for the New York Control Area (NYCA) to maintain reliability based on the availability of the NYS transmission system. The NYISO also requires all Load Serving Entities (LSEs) with service agreements to maintain appropriate levels of ICAP.

### ***Planning and Transmission System Expansion***

The NYISO is responsible for assessing the reliability and expansion of the NYS Transmission System in compliance with the reliability rules of the NYSRC. This process includes the annual compilation of a NYS transmission plan.

## **2.2. NYISO Electricity Market**

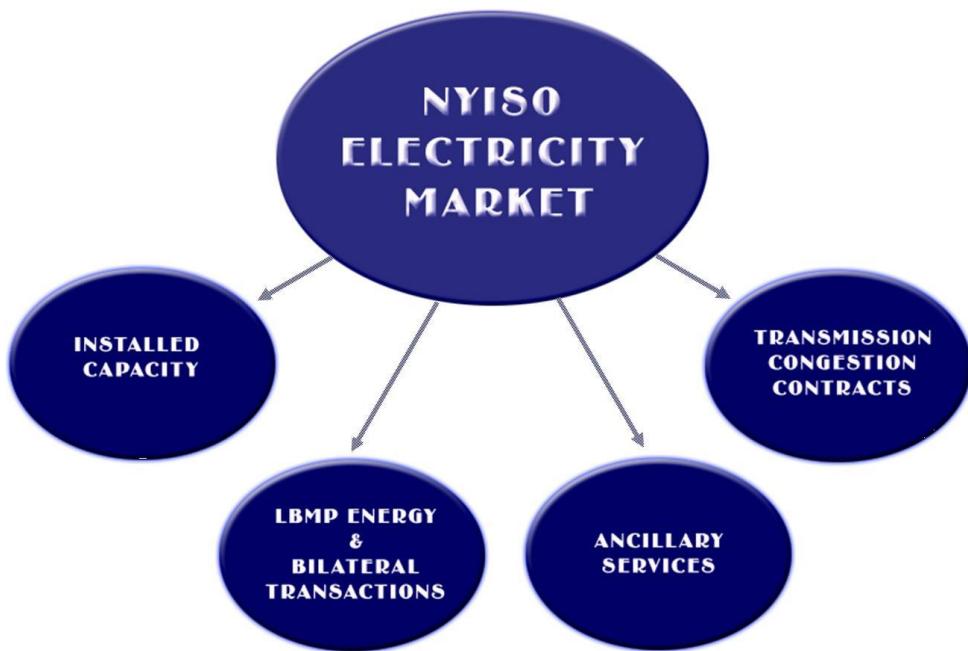
The NYISO facilitates and administers the markets for installed capacity, energy, ancillary services, and transmission congestion contracts. The NYISO also administers the scheduling of firm and non-firm point-to-point transmission service and Network Integration Transmission Service.

Market Participants may submit offers on a day-ahead and real-time basis for generation, and bilateral transactions. Loads may submit bids only in the DAM.

At the close of each market, the NYISO initiates a bid evaluation process. The process involves retrieving bids from the Market Information System (MIS), analyzing the bids according to prescribed rules, making adjustments to ensure that reliability requirements are met, and posting results to the MIS.

The markets that are administered and conducted by the NYISO are shown in Figure 2.

**Figure 2: NYISO Electricity Market**



#### **2.2.1. Installed Capacity Market**

The Installed Capacity (ICAP) Market is established to ensure that there is sufficient generation capacity to cover the capacity requirements determined by the NYISO. An ICAP resource is a generator, Aggregation or load facility that is accessible to the NYS transmission system, which is capable of supplying and/or reducing the demand in the NYCA and complies with the requirements of the reliability rules. For information on this product, please see the *NYISO Installed Capacity Manual*, available from the NYISO Web site at the following URL: <https://www.nyiso.com/manuals-tech-bulletins-user-guides>.

#### **2.2.2. Energy Market**

The energy market provides a mechanism for Market Participants to buy and sell Locational Based Marginal Price (LBMP) energy and to bid various kinds of bilateral transactions.

Suppliers may sell energy directly into the market at LBMP or be party to a bilateral contract selling directly to purchasers.

LSEs and others may purchase energy at LBMP by submitting bids and/or they may be party to a bilateral contract purchasing directly from a supplier.

Parties to a bilateral contract may elect to bid a transaction as a firm point-to-point transaction, in which case they are agreeing to pay congestion charges to secure delivery of the requested energy.

Alternatively, they can enter a non-firm point-to-point transaction, in which case they indicate a willingness to accept the scheduled delivery of power only if there is no congestion; i.e., they are not willing to pay congestion charges.

### ***Two Settlement Processes***

The NYISO energy market uses a two-settlement process.

The first settlement is based upon the day-ahead bids and the corresponding schedule and prices determined by the day-ahead SCUC. The second settlement is based upon the real-time bids and the corresponding real-time commitment (RTC) and real-time dispatch (RTD). Market Participants may participate in the DAM and/or the real-time market.

As a result of the day-ahead commitment process, a set of Resources is scheduled to be available for dispatch in each hour of the next day and a set of LSEs are scheduled to buy a certain amount of load at the day-ahead price.

The generators and Aggregations designated by SCUC to be available for the next day are dispatched against the LSE bid-in load and losses. From the dispatch, LBMPs are computed, and forward contracts are established for generation and load accordingly. Subsequently, during real-time operation, changes in operating conditions, the influence of additional real-time supply bids, and variations in actual load will cause the real-time schedules and prices to be different from the day-ahead schedules and prices. Difference in Resource output, and in load consumption, as compared to the first settlement values are settled at the second settlement, or real-time price.

For more information about the NYISO Energy Markets, refer to the following manuals: NYISO Day-Ahead Scheduling Manual and the NYISO Transmission and Dispatching Operations Manual.

#### **2.2.3. Ancillary Services Market**

Ancillary services support the transmission of energy and reactive power from supply resources to loads and are used to maintain the operational reliability of the NYS power system. More specifically, ancillary services refer to services provided by generators and Aggregations, demand side resources, other system equipment, and services provided by NYISO.

One of the NYISO's main responsibilities is to facilitate the ancillary services market. NYISO coordinates, controls, and, if necessary, directs the actions of generation resources and other facilities that provide ancillary services to the NYISO.

For more information about the Ancillary Services Market, refer to the *NYISO Ancillary Services Manual*, available from the NYISO Web site at the following URL: <https://www.nyiso.com/manuals-tech-bulletins-user-guides>.

#### **2.2.4. Transmission Congestion Contracts Market**

NYISO is responsible for managing congestion (transmission limitations) in the NYS power system. In the DAM, energy bids are evaluated, and a commitment schedule is produced that takes into account line and interface constraints of the transmission system.

To avoid overloading certain lines and equipment, the NYISO may need to deviate from its least expensive (bid-price) generating resources and redispatch to ensure that no constraints are violated. This means that the cost of energy will be higher in some locations and lower in others, resulting in a locational difference in costs to LSEs and revenue to suppliers. As more bidders vie for existing transmission capacity across key interfaces, the value of that transmission capacity tends to increase.

To manage congestion and bring price predictability to market costs, a financial instrument, a Transmission Congestion Contract (TCC) was created. TCCs provide a way for Market Participants to pay a fixed charge for transmission service ahead of time, thereby hedging their exposure to transmission congestion.

For more information on Transmission Congestion Contracts, please refer to the *NYISO Transmission Congestion Contracts Manual*, available from the NYISO Web site at <https://www.nyiso.com/manuals-tech-bulletins-user-guides>.

### 3. NYISO Market Mechanics

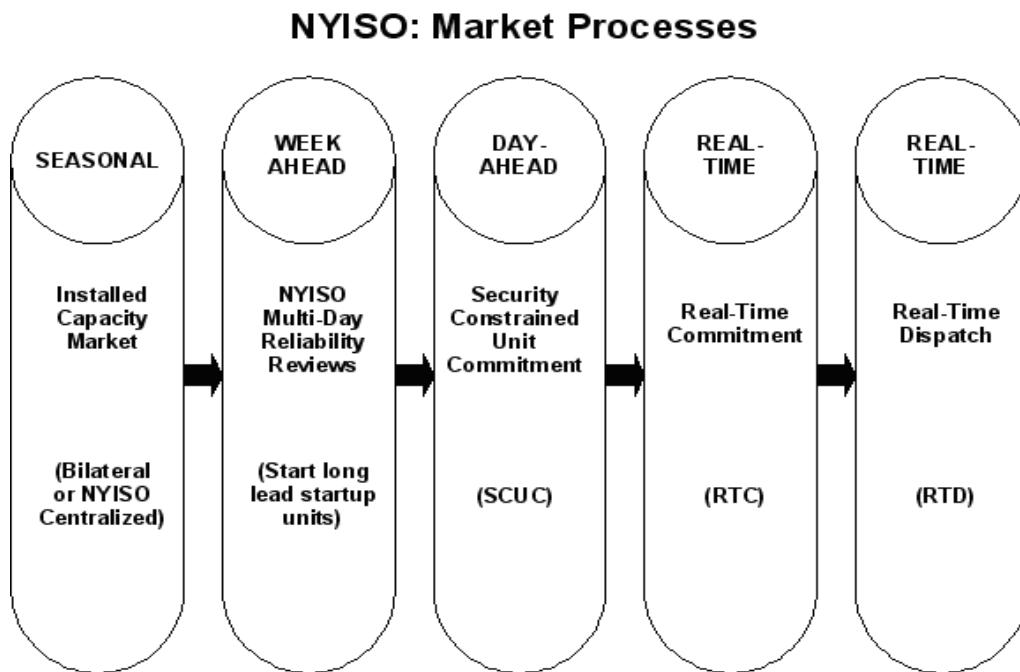
This section of the MPUG provides the reader with an overview of the mechanics of the NYISO market operation. The following topics are discussed:

- Market Processes – seasonal to real-time.
- Market and Settlement Processes – bid to bill.
- Locational Based Marginal Price – energy, losses, and congestion.
- Risk Management – load serving entities, generators and Aggregators.

#### 3.1. Market Processes

The NYISO market comprises of a number of closely linked processes to ensure efficiency and promote reliable operation. The major processes, illustrated in Figure 3, include an annual Installed Capacity requirement/market, week-ahead reliability reviews, Day-Ahead Market (DAM), Real-Time Commitment (RTC), and finally the Real-Time Dispatch (RTD). These processes are inter-related and dependent upon one another.

**Figure 3: NYISO Market Processes**



##### 3.1.1. Seasonal Planning Process

The first step is the annual planning process in which Load Serving Entities (LSEs) within the New York Control Area (NYCA) must forecast their peak load requirements for the coming year. The forecasted peak is then translated into an Installed Capacity (ICAP) requirement for each LSE. The ICAP requirement is

translated into UCAP. The LSE must demonstrate to the NYISO that it either owns, or has title to, sufficient UCAP to meet its yearly obligation.

LSEs may obtain title to capacity through ownership, bilateral contracts, or an auction facilitated by the NYISO. Generators and Aggregations, who qualify as ICAP providers, are required to either schedule bilateral transactions or submit bids to serve NYCA load into the NYISO's DAM.

The ICAP market provides an important link to the NYISO's DAM, which is designed to ensure that there are sufficient resources identified to meet the NYISO's day-ahead forecast load and capacity requirements.

### **3.1.2. Week-Ahead Operation**

Bid data, sufficient for seven days of operation, is requested by the NYISO. Though only commitments for the next day are financially binding, the remaining data is examined for security purposes. Without regard for economics, NYISO load forecasts for energy and reserves are examined for each day of the remaining six days of bids and proposed transaction schedules to determine if there are sufficient resources available to meet all NYISO forecast requirements. If there are sufficient resources, then the NYISO need not take any additional action.

If a shortfall is predicted through this process, there are a number of actions that could be taken by the NYISO, including: notifying the market relative to the shortage, purchasing additional reserves, and, if need be, selecting a long-lead start up unit (a generator which requires a period of time in excess of 24 hours to start and synchronize to the power system). The seven-day Reliability Check provides the NYISO with an opportunity to solicit additional resources, in addition to the obligations of the ICAP providers. (See the *NYISO Installed Capacity Manual*, available from the NYISO Web site at <https://www.nyiso.com/manuals-tech-bulletins-user-guides>).

Both the ICAP obligations and NYISO actions resulting from the multi-day reliability checks ensure that there will be sufficient resources available for the NYISO to solve a viable day-ahead unit commitment.

### **3.1.3. Day-Ahead Operation**

The day-ahead unit commitment process software package, which determines the winning bid selections, is a combination of both economics and security. Known as SCUC, this software package for commitment mirrors the functionality of the RTS software, in that both automatically account for transmission limitations and bottlenecks. This strategy reduces the necessity for successive iterations and extensive operator judgments and intervention.

#### **3.1.4. Real-Time Operation**

The RTS system, consisting of the RTC, Real-Time Automated Mitigation Process (RT-AMP), RTD, and Real-Time Dispatching–Corrective Action Mode (RTD-CAM) programs, carry out real-time market functions. RTS supports new market features; additional frequent commitment of resources; a forward-looking dispatch optimization horizon; and the second settlement for operating reserves and regulation.

RTS shortens the elapsed times from RTC to RTD and provides greater convergence between scheduling decisions and real-time clearing prices.

Price convergence is the result of the following:

- Consistent modeling of reserve requirements in the commitment and dispatch processes
- Shorter time interval between RTC and RTD
- A load model that provides estimates of the load profile at various times during the hour

#### **3.1.5. Real-Time Commitment**

After the day-ahead schedule is published and no later than 75 minutes before each hour, customers may submit real-time bids into the RTC program for real-time evaluation (see section 7.6.1 for information on scheduled lines bidding deadlines). RTC will:

- Make binding unit commitment and de-commitment decisions for the periods beginning 15 minutes (in the case of resources that can respond in ten minutes) and 30 minutes (in the case of resources that can respond in thirty minutes) after the scheduled posting time of each RTC run;

A bid into the RT market is an indication that the resource is able to start within 30 minutes.

- Provide advisory commitment information for the remainder of the two-and-a-half-hour optimization period; and
- Produce binding schedules for external transactions.

RTC co-optimizes to solve simultaneously for all load, operating reserves and regulation service requirements and to minimize the total as-bid production costs over its optimization timeframe. RTC will consider:

- SCUC's resource commitment for the day;
- Load and loss forecasts that RTC itself will produce each quarter hour;
- Binding transmission constraints; and
- All real-time bids and bid parameters.

#### **3.1.6. Real-Time Automated Mitigation Process**

NYISO's Market Mitigation and Analysis staff has the responsibility to quickly and accurately detect and mitigate the exercise of market power. Automation of tests and screens, consistent with the Market Monitoring Plan and Market Mitigation Measures, is the most viable means of accomplishing this

responsibility. The RT-AMP executes in conjunction with RTC every 15 minutes and incorporates both conduct tests and impact tests. The Market Mitigation Measures are the Tariff Rules for applying real-time mitigation. They are set forth in Attachment H to the Market Services Tariff.

### ***Conduct Test***

The conduct test compares the price of each energy offer, including startup and minimum generation costs, to respective reference levels. When reference levels are exceeded by threshold determined in accordance with the Market Mitigation Measures, the bid component is said to have failed the conduct test. For Behind-the-Meter Net Generation Resources, the conduct test will only be applied to the price MW pair combinations above the Resource's bid in Host Load.

### ***Impact Test***

The impact test examines the change in prices that would result if conduct-failing bids were replaced with reference levels. This test "trips" if mitigation of conduct-failing offers would change LBMP(s) by a threshold determined in accordance with the Market Mitigation Measures. The impact test is performed using a full recommitment and dispatch that compares the LBMPs that result when as-submitted bids are used to the LBMPs that result when conduct-failing bids are replaced with reference levels. Impact is determined collectively; it is not unit-specific.

### ***Considerations***

Many rules, parameters, limits, and thresholds are defined to support the implemented mitigation process. Considerations include:

- Determination of load pockets in constrained areas;
- Determination of threshold values for each load pocket of a constrained area;
- Determination of the nesting pattern of load pockets;
- Arming of the automated process; and
- Exclusions from mitigation.

### ***Mitigation Duration***

For settlement purposes, mitigation is applied for whole hours. If the need for real-time mitigation is detected during an operating hour, for dispatch purposes it applies for the remainder of that hour.

#### **3.1.7. Real-Time Dispatch**

The RTD program makes dispatching decisions, sends base point signals to internal generators, Aggregations and other Resources (including Behind-the-Meter Net Generation Resources, and Demand

Side Resources), calculates real-time market clearing prices for energy, operating reserves, and regulation service, and establishes real-time schedules for those products on a five-minute basis.

RTD does not make commitment decisions and does not consider start-up costs in any of its dispatching or pricing decisions. Each RTD run co-optimizes to solve simultaneously for load, operating reserves, and regulation service, and to minimize the total cost of production over its nominal optimization horizon of one hour.

In addition to producing a binding schedule for the next five minutes, each RTD run produces advisory schedules for the remaining four 15-minute periods of its bid-optimization horizon. RTD uses the most recent system information and the same set of bids and constraints that are considered by RTC.

### **3.1.8. Real-Time Dispatch – Corrective Action Mode**

**The Real-Time – Corrective Action Mode (RTD-CAM)** is a specialized version of RTD that is only run under extraordinary circumstances at the request of the NYISO system operators. RTD-CAM runs immediately on demand rather than periodically. RTD-CAM operates with different constraints and produces results more quickly than RTD. RTD-CAM is able to commit fast-start resources to meet energy and reserve requirements in most of its operating modes. RTD-CAM does not decommit fast-start resources, although it provides messages to the operator when the resource is no longer economically loaded.

### **3.1.9. RTD-CAM Operating Modes**

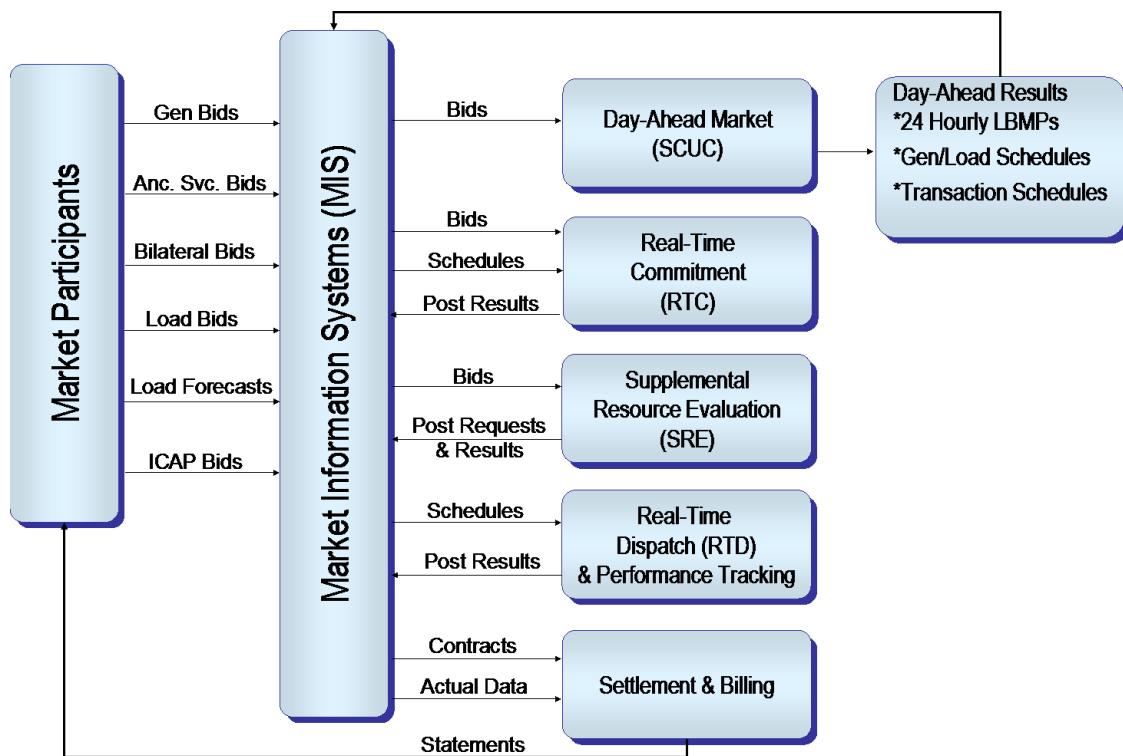
RTD-CAM has the following five operating modes:

- **Reserve Pickup (RPU)** – RPU reestablishes the NYISO dispatch schedule after major system events such as a loss of transmission lines or generation, providing 10-minute basepoints and committing 10-minute fast-start units as required.
- **Maximum Generation Pickup (MGP)** – After a severe power system disturbance not correctable by a RPU dispatch, MGP moves all units at their emergency ramp rates in selected zones of the NYCA to their full operating capability and may commit both fast-start and slow-start resources in the selected zones.
- **Basepoints as Soon as Possible-No Commitments (BASAP-NC)** – To correct line, contingency or transfer overloads or voltage problems caused by unexpected system events, BASAP-NC provides five-minute basepoints but does not perform any unit commitments.
- **Basepoints as Soon as Possible-Commit as Needed (BASAP-CAN)** – BASAP-CAN is identical to BASAP-NC except that 10-minute fast-start resources can be committed if necessary.
- **Re-Sequencing** – The re-sequencing mode executes automatically following the termination of one of the RTD-CAM modes above and provides 10 minutes' worth of basepoints (two 5-minute sets) that are used to cover the interval until the next regularly scheduled RTD can execute and issue basepoints.

### 3.2. Market and Settlement Processes

Figure 4 presents an overview of the day-ahead and the real-time markets and settlements.

**Figure 4: Market and Settlement Process**

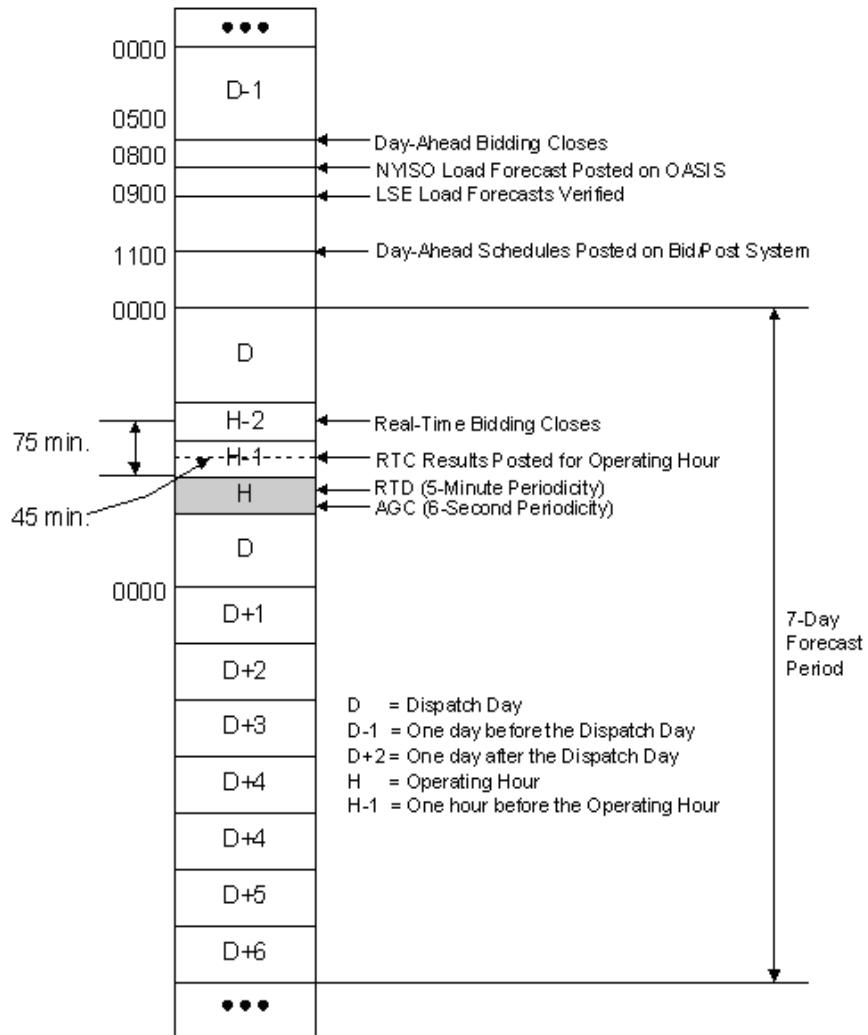


The market and settlement process consists of the following major elements:

- Market Information System (MIS)
- Day-Ahead Market (SCUC)
- Real-Time Commitment (RTC)
- Supplemental Resource Evaluation (SRE)
- Real-Time Dispatch (RTD)
- Settlement and Billing

Figure 5 shows the time line of events for market operation.

**Figure 5: Market Timeline**



Energy and other related services are offered through a competitive bidding process that is administered and facilitated by the NYISO. Transaction bids can be entered up to 18 months before the day-ahead and real-time markets close, while generator and load bids can only be submitted up to 15 days in advance of the close of the DAM or the specified HAM. Aggregations cannot submit Bids that cross a monthly boundary (i.e., span two consecutive months) if there are pending changes to the composition of the Aggregation for the future month. When there is a change to the composition of an Aggregation, Bids will need to be submitted separately for each month to reflect the differing capabilities of the Aggregation.

Figure 6 lists when and how energy is bid into the market.

**Figure 6: Bid Sources by Market**

|   | Energy                           | Reserve                          | Regulation                    | Comments   |
|---|----------------------------------|----------------------------------|-------------------------------|--|
| Day-Ahead<br>(SCUC)                             | Day-Ahead<br>Bids                | Day-Ahead<br>Bids                | Day-Ahead Bids                | Day-ahead bids that are honored in the commitment process include start-up times. When long lead units are selected, day-ahead unit hourly schedules are copied to the proper hours of the real-time market tables and become "Must Run" in RTC. |
| Supplemental<br>Resource<br>Evaluation<br>(SRE) | Uncommitted<br>Day-Ahead<br>Bids | Uncommitted<br>Day-Ahead<br>Bids | Uncommitted<br>Day-Ahead Bids | For the given period, bids are selected from those unselected day-ahead bids that have not expired. Bids may be entered or modified after market closes. Start-up times are honored.   |
| Real-Time<br>Market                             | Real-Time<br>Bids                |                                  |                               | By bidding into this market, Generators and Aggregations have agreed that they will start if selected. Start-up times are considered except for BTM:NG Resources, ESRs and Aggregations .  |
| Supplemental<br>Resource<br>Evaluation<br>(SRE) | Uncommitted<br>Real-Time<br>Bids | Uncommitted<br>Real-Time<br>Bids | Uncommitted<br>Real-Time Bids | For the current hour, bids are selected from unselected real-time bids. All real-time bids are valid from market close through the schedule hour. Start-up times up to 30 minutes are honored.   |

### 3.2.1. Market Information System

The MIS is the scheduling interface between a Market Participant and the NYISO. It allows each Market Participant to enter, view, modify, and change bids for the following:

- Day-Ahead Generation
- Day-Ahead Load
- Day-Ahead Hourly Load Forecast
- Day-Ahead Bilateral Transactions
- Real-Time Generation
- Real-Time Bilateral Transactions

The MIS is also a means for tracking market activities; e.g., to verify if schedules have been accepted after a market settles or to view public information such as LBMPs, ATCs, and other OASIS information.

## ***Interacting with the MIS***

There are two methods for interacting with the MIS:

- One method is based on using a Web browser as a means for interacting with the MIS server. The browser is used by the Market Participant to enter information and to view information posted by the NYISO. The procedures for these interactions are described in Section 7 of this Guide.
- The second method is a batch process, where the Market Participant prepares all the data in a text, Comma Separated Value (CSV) file format, as explained in Section 8 of this Guide. This file is sent to the MIS server using a Web browser (or a functionally equivalent program). Market Participants can also request the results of their queries in the same file format, using the same process for downloading to a local computer.

Bid data is examined for the following items:

- Format validity
- Ownership and permission
- Completeness
- Consistency

Having passed all of these, bid data is inserted into the MIS database and checked against other business rules. If no violations are detected in this process, the bid status is set to "Validation Passed." Otherwise, it is posted as "Validation Failed," and a message explaining the failure is provided.

## ***Market Closing Time***

Bids must be submitted by the market closing time. Any bid submitted after the market closing time will not be considered a valid bid. Generator, Aggregation, and load bids can be submitted up to 15 days in advance of the close of the DAM or the specified HAM. Transaction bids can be submitted up to 18 months in advance.

After the market closes, bids are evaluated and the results are posted to the MIS according to the timeline shown on Figure 5. Market Participants are responsible for checking the MIS periodically to retrieve the status of their bids.

## ***Day-Ahead Generation Bids***

Once the DAM has closed, the valid bids are first posted as "Evaluating." The MIS builds a file of these bids and submits it to the SCUC function. After SCUC runs, the generation schedule file is returned and MIS reviews the unit commitment results. If the unit was not committed, the posted bid status is changed to "Rejected." If it was accepted, the posted bid status is changed to "Accepted" and the day-ahead schedule and LBMP are posted.

### ***Day-Ahead Load Bids***

All LSEs are required to submit a set of hourly load forecasts for the next day. In addition, they will either submit or confirm bilateral transactions and will indicate a desire to purchase some fraction of their load from the DAM. Load forecasts and load bids are assembled by zone for use by the SCUC process. Once the SCUC has finished, the first settlement contracted load information, including zonal LBMPs, is posted.

### ***Day-Ahead Transaction Bids***

There is an additional step in the validation process for bilateral transactions. Bilateral transactions must be confirmed by the buyer, the seller, and the financially responsible party (FRP). When any party to the transaction submits or updates the transaction, the other parties must confirm that transaction. Transactions that have not been confirmed by all parties at market close are not considered valid. The parties to a transaction may establish trust relationships with each other to enable the transaction confirmation to occur automatically. Trust relationships may be established by contacting NYISO Stakeholder Services.

Next, non-firm transaction requests are separated and sent to the transaction selector. Firm transactions are converted to equivalent generation and load in order to allow SCUC to consider them. When the results of SCUC and transaction selector are posted back, the post-unit commitment process matches committed generation for all transactions served by external units. Transactions served by internal units are matched with load schedules if a price cap was supplied, or else they are accepted. Non-firm advisory approvals/rejections are also posted at this point.

Finally, external transactions are confirmed with the affected external control area(s). The day-ahead bid will be marked accepted and the agreed upon amount (which could be 0) will be posted into the real-time bid. [See the Transmission and Dispatch Operations Manual, available from the NYISO Web site at <https://www.nyiso.com/manuals-tech-bulletins-user-guides>]

### ***Real-Time Generation Bids***

As with the day-ahead process, as soon as the real-time market closes, all validated real-time bids are posted as "Evaluating." As the real-time market evaluation process progresses, the generation schedules are returned to the MIS. If the generation was scheduled, the bid status is changed to "Accepted" and the schedule is posted. If not, it is posted as "Rejected."

### ***Real-Time Transaction Bids***

Upon real-time market closing, all validated and confirmed real-time transaction requests are posted as "Evaluating." All non-firm transactions, including those advisory accepted and advisory rejected in DAM, are separated and passed to the Non-Firm Transaction Evaluator. The firm transactions are converted to equivalent generation and load and passed to the RTS process.

The results of RTS are returned to the MIS where they are matched against the transaction requests to determine which have been scheduled, in the same fashion as DAM. The results are posted accordingly. Non-firm transactions are considered at this point. Non-firm transactions approved in real-time will be marked as either "Advisory Accepted/Rejected;" i.e., scheduled or rejected.

### ***OASIS***

OASIS data includes the public MIS data. The information is available on Web display pages and may be downloaded by the User. Section 5 of this Guide describes the steps to access these display pages and to download this data.

### ***MIS Postings***

The following information is posted on the MIS and available to all NYISO Eligible Customers and Users authorized to review such information. None of the data presented here is considered confidential to any specific Direct Customer.

- ***Primary Transmission Congestion Contract (TCC) Holder.*** This includes the amount of MWs purchased, source location, sink locations, owners' name, and owner contact information.
- ***Retained Transmission Rights.*** Includes the same type of information as primary TCC holder information.
- ***Transmission Service Charges (TSC)*** – Posting of a district-based TSC for each TO.
- ***NYISO-Approved Transmission Outage Schedules.*** Listing of long-term planning studies available from the NYISO. Transmission provider personnel transfers between transmission and marketing functions.
- ***Standards of conduct for the Transmission Providers.***
- ***Day-Ahead and Real-Time LBMPs, marginal cost of losses, and marginal cost of congestion.***
- ***Day-Ahead ancillary service clearing prices.***
- ***NYISO load forecast used in the day-ahead commitment process.***

The above information is to be posted using static HTML files referenced from an index page on the MIS Home Page.

- ***ATC and TTC Postings.*** ATC and TTC are posted for each operating interface. Each interface has a value for the DAM and the real-time market. There are several ATC and TTC values posted. ATC, without non-firms, shows the remaining transaction capacity of the interface

prior to scheduling any non-firm transactions. ATC, with non-firms, represents the remaining transmission capacity once all the non-firm transactions that can be scheduled have been scheduled.

The following interface as shown in Figure 7 is an example of the information that is posted and downloadable through the MIS:

**Figure 7: WEST-CENTRAL Date: MM/DD/YYYY**

| Time  | DAM |                   |                  | Real-Time |                   |                  |
|-------|-----|-------------------|------------------|-----------|-------------------|------------------|
|       | TTC | ATC w/o Non-Firms | ATC w/ Non-Firms | TTC       | ATC w/o Non-Firms | ATC w/ Non-Firms |
| 0:00  | 378 | 25                |                  | 412       |                   | 0                |
| "     | "   | "                 |                  | "         |                   | "                |
| 23:00 | 412 | 170               |                  | 412       |                   | 20               |

### **Important Notes**

There are several important characteristics of this approach:

- The interfaces to be posted are the operating interfaces of the NYISO, not point-to-point values used in the previous OASIS system.
- The calculation of ATC without non-firm transactions relies on a centralized dispatch program that accounts for the effect of both LBMP market bids and transaction bids on the system.
- ATC with non-firms picks up where the solution left off and evaluates the impact of each additional transaction on the operating interfaces.
- Components in the current ATC calculation such as own load or reserve for own use are not available because of the centralized system dispatch that includes these quantities along with the transactions.

#### **3.2.2. Day-Ahead Market**

The SCUC performs the decision regarding which generation bid to accept and which bilateral transaction to schedule. Day-ahead outages are assembled along with the preliminary zonal load forecast as major inputs to SCUC. SCUC then uses these inputs along with the generation bids, NYISO load forecasts, LSE load bids, and requests for firm external transactions to perform the unit commitment process.

After the unit commitment has been performed, the transactions are then processed against the committed generators in order to evaluate which external transactions have been approved. At this time, non-firm transaction requests are also considered.

### ***Assemble Day-Ahead Transmission Outages***

The transmission system outages scheduled for the next day are extracted from the operations planning database. This database is prepared in the weeks and days ahead of this time by the Outage Coordinator in conjunction with the Transmission Provider Outage Coordinators.

The NYISO Outage Coordinator assures that the pattern of planned outages for a given period does not represent an unnecessary risk to the secure operation of the NYS electric system. The outages scheduled for the next day are extracted from the database and are used to update limits for the SCUC model, and the TTCs for posting on the MIS.

### ***Produce NYISO Preliminary Zonal Load Forecast***

Weather forecast information grouped by zone is input into a neural network forecaster tool to produce a preliminary zonal load forecast for each hour of the following day. The tool makes use of historical load and weather patterns. The unit commitment program uses the load forecast.

### ***Security Constrained Unit Commitment Process***

A Transmission Constraint Group (TCG) file is assembled from load bids, load forecasts, and TTC values and forms a major input to the SCUC process. The SCUC model, updated for transmission outages, and the generator bids are the other major inputs to the process. SCUC produces a list of committed generators, their first settlement schedules, and LBMPs for all forward contracts generated by the DAM.

In the TCG file, the required SCUC inputs are organized by groups – taking into account the location of load and resources – with respect to transmission constraints. The first step in the process is to assemble the preliminary zonal load forecast produced by the Zonal Load Forecast program grouped by zone.

Then the loads, the LSE load bids, the TTCs and the Firm Transaction Export requests are combined with the reserve and regulation requirements to form two separate sets of TCGs. One set represents the first settlement bid load and the other represents the entire forecast load. These are used respectively in the two steps of SCUC.

### ***SCUC Sequential Run, First Settlement***

There are actually two separate executions of SCUC that are performed sequentially. The first run (Commit to **Bid Load** + Firm Transactions) uses as its input a Transmission Constraint Group (TCG) file that reflects only that portion of the load represented by firm transactions and by LSE day-ahead market commitments. The load for dispatch includes export transactions. Reserve requirements are also factored

into the requirements as well. The total load used in this first step is referred to as the "First Settlement Load." Consequently, the set of generators committed to meet this load is termed "Gen. Set 1."

The second execution of SCUC considers the entire ***forecast load*** plus exports. As generating resources, it first considers all "Gen. Set 1" units as "must run." It then considers any additional units it must commit to meet the additional load, choosing them based not on their original energy bids but on their reserve availability bids. The results of this commitment are labeled "Gen. Set 2."

Finally, the generators in Gen. Set 2 are dispatched to the first settlement load level in each hour of the next day. Results of the dispatch are used to produce the day-ahead LBMPs and schedules for the first settlement forward contracts.

### ***SCUC Activity Detail***

SCUC does an initial unit commitment that is designed to meet the required load while minimizing total cost but without regard for security constraints. This initial assessment of the commitment required is then used to produce a set of 24 base-case load flows, one for each hour, using the system model.

For each hourly load flow, the entire set of contingencies to be considered is checked for violations. The constraints derived from this process are then used as constraints in another invocation of the linear programming engine to modify the solution to solve for these violations. The process is repeated until no new violations are created, or a User defined maximum iteration count is reached.

### ***Evaluate Transactions***

During the commitment process, all external firm imports are treated as generators and all firm exports are treated as load. Once the commitment has finished, the results of the commitment are re-matched with the original transactions. To the extent they match the results of SCUC, the transaction is considered approved (subject to confirmation with the external control area involved). All internal firm transactions are automatically approved since they are financial and do not directly affect dispatch, with the exception of internal firm transactions involving a trading hub. For trading hub transactions, the NYISO requires the trading hub energy owner to sink the same amount of energy at a zonal trading hub as it sources for a given market and hour in order for its trading hub transaction to be accepted.

Non-firm transactions are then evaluated. If it is determined that a non-firm transaction will either not encounter congestion or that it is in a direction opposite to a constraint, it is then checked against ATC. The order in which non-firm transactions are selected for consideration is based on the NERC Priority guidelines.

### **3.2.3. Supplemental Resource Evaluation**

Supplemental Resource Evaluation (SRE) commitments for energy and/or ancillary services for the next day may be required at any point after the day-ahead unit commitment process has completed. The need would most generally arise due either to the unexpected withdrawal of a unit from service or to an unexpected change in either the load or the transmission topology.

Various events can trigger this process.

### **3.2.4. Real-Time Market**

The Real-Time Market is used to (1) evaluate generation and transaction bids submitted for consideration in the real-time market and (2) keep track of current transaction schedules. The real-time market is closed 75 minutes before the start of the Operating Hour.

#### ***Real-Time Scheduling***

The Real-Time Market evaluates bids for generation and the transactions specified for the real-time market. These bids include any unused bids from the DAM that were bid as both DAM and Real-Time.

Real-Time evaluation utilizes the RTS tool. RTS makes use of the SCUC software, but is adjusted to consider only a 2 ½ -hour window. In addition to evaluating last minute submissions to the market, it also allows NYISO operators to evaluate the effect of any unplanned events that have occurred since the real-time posting.

To evaluate conditions properly, it is necessary to provide an updated zonal load forecast reflecting actual conditions and an updated transmission system model reflecting the current actual topology of the system. At this time, an updated advisory report of the likely status of non-firm transactions is also performed.

### **3.2.5. Real-Time Dispatch**

In RTD, all NYCA Resources are dispatched to satisfy all NYCA loads and exports while honoring transmission security constraints. The MIS supplies bid curve data and decremental bid data to RTD. The results of RTD are individual generator and Aggregation desired outputs and the bus LBMPs for generators, the zonal LBMPs for loads and the Transmission Node LBMPs for Aggregations. Generators and Aggregations are scheduled every five minutes by RTD and controlled every six seconds by Automatic Generation Control (AGC).

### **3.2.6. Settlement and Billing**

All energy bids are settled based on the Locational Based Marginal Prices (LBMPs) at the location of the generators and Aggregations (by generator bus or Transmission Node) and the loads (by zone). LBMPs are calculated as a part of the day-ahead scheduling process and during the real-time operation.

During each hour of operation, the results of RTD and AGC are captured and stored for later use by the billing subsystem. The NYISO has all the information necessary to determine all of the charges and payments that flow between the NYISO and the Market Participants.

## **3.3. Locational Based Marginal Price**

The cornerstone of the NYISO Market Operation is the use of LBMP. The principle of efficient economic operation suggests that, in the absence of any transmission losses and transmission constraints, the least costly way of producing electric energy is achieved when all Resources supply energy at a MW level such that the price of one more MW of output is the same for all unconstrained units.

The price of producing this additional MW is called the marginal price. For the assumed conditions, the marginal price will be the same for all generators, Aggregations, and loads. This ideal operating condition is known as “equal lambda” dispatch.

In real power networks, the presence of losses and network constraints on the flow of electricity requires a departure from this dispatch to satisfy the most efficient, reliable operation.

### **3.3.1. Meaning of LBMP**

In mathematical terms locational prices are calculated using the following equation:

$$P_i = P_{ref} + L_i P_{ref} + \alpha_j \alpha_k SP_{jk} SF_{jki} = \text{Energy} + \text{Losses} - \text{Congestion}$$

*Where:*

- $P_i$ : Locational price at Bus i;  
 $L_i$ : Marginal loss factor at Bus i;  
 $P_{ref}$ : Locational price of energy at the reference bus;  
 $SP_{jk}$ : Shadow price of constraint j in contingency k; and  
 $SF_{jki}$ : Shift factor for real load at Bus i on constraint j, in contingency k.

This equation separates the locational price into the price of energy at a reference bus ( $P_{ref}$ ), the cost of losses relative to the reference bus ( $L_i P_{ref}$ ) and the cost of congestion, also relative to the reference bus ( $\alpha_j \alpha_k SP_{jk} SF_{jki}$ ).

As the first term of the equation shows, the locational price of energy at the reference bus is used in calculating the LBMP for all other locations across the state. The loss and congestion components at the reference bus, by definition, are zero. At other buses, the transmission grid determines the losses and transmission constraints determine congestion values.

### ***Transmission Losses***

Transmission losses cause some amount of generation to be dissipated (lost) along the transmission path(s) to the load due to the electrical resistance in transmission lines and transformers. Losses incurred are low for generation that is close to load centers compared to generation in regions furthest from the loads. If there were no constraints in New York, then the congestion component would equal zero and price differentials would be due entirely to the cost of losses. Generation that is close to load centers is most valuable at these times as the losses incurred in getting the energy to the customers is very low and, in some instances, the incremental energy will reduce total system losses. Generation in regions furthest from the loads is worth the least as the losses incurred getting the energy to the loads are large. With no congestion, if the LBMPs were 40 \$/MWh in the West and 50 \$/MWh in New York City, then a New York City zone generator bid of \$50 would be considered equivalent to \$40 generator bid in the West zone. This would account for the \$10 a megawatt cost in losses to transport the energy from the West.

### ***Transmission Congestion***

A constraint occurs when the energy flow on a transmission line is limited due to the generation dispatch pattern or the possible re-routing of energy due to a contingency. When a constraint occurs, energy to serve the load must come from other locations that are not binding. The cost of congestion is determined by the shadow price of the constraint and the real power shift factor on the constraint to serve load. Shadow prices and shift factors are incremental shifts of costs or power for constraints caused by contingencies.

The LBMPs represent the incremental value of an additional MW of energy injected at a particular location. In other words, it is the change in total cost (all 3 components) of meeting load when a free MW of energy is provided at that location.

### ***Reference Bus LBMP***

Since LBMPs are always defined with respect to a NYISO-selected reference bus, we will first explain how the LBMP of the reference bus is derived.

The LBMP for the reference bus is defined as the least cost to supply a 1-MW load attached to the reference bus, while honoring all transmission constraints.

### **What does LBMP mean?**

The reference bus LBMP establishes the marginal price for energy, which is the basic component of the LBMP at all the other buses in the system. Each LBMP bus has the following components:

- Marginal price for energy (usually positive)
- Marginal price for losses (positive or negative)
- Marginal price for congestion (positive or negative)

The LBMP is the price that the energy market:

- Will pay a generator to inject power at its electrical location, or an Aggregation to inject power at its corresponding Transmission Node, or
- Will charge a load for the power withdrawn from a subzone.

**Note:** One LBMP is used for an entire zone (including all its subzones).

Figure 8 summarizes the conditions that can result in positive and negative LBMP components for losses and congestion.

**Figure 8: LBMP Components**

| LBMP Components           | LBMP Components at Reference Bus | LBMP Components at any other Bus         |
|---------------------------|----------------------------------|--|
| Marginal Energy Price     | Reference Bus LBMP               | Equal to LBMP at Reference Bus; Positive |
| Marginal Loss Price       | 0                                | Positive or Negative                     |
| Marginal Congestion Price | 0                                | Positive or Negative                     |

**Figure 9: Price Impacts**

$$\text{LBMP} = (\text{Marginal Energy}) + (\text{Marginal Losses}) - (\text{Marginal Congestion})$$

| Relative Price                 | Generators/Aggregations | Loads                 |
|--------------------------------|-------------------------|-----------------------|
| LBMP Greater than Ref Bus LBMP | Encourages Sales        | Discourages Purchases |
| LBMP Less than Ref Bus LBMP    | Discourages Sales       | Encourages Purchases  |

### **Zonal LBMP Example**

The following zonal LBMPs show a Central East congestion pattern illustrated by the large price change between the Mohawk Valley (MHK VL) and the Capital (CAPITL) zones. In this interval, Central East is the

only constraint that is binding (other interfaces could be binding but are not, and there is no way to exactly tell from the prices if they are or not).

**Figure 10: Zonal LBMP Interval**

| Time Stamp    | WEST  | GENESE | CENTRL | NORTH  | MHK VL | CAPITL | HUD VL | MILLWD | DUNWOD | N.Y.C. | LONGIL | HQ     | NPX    | IMO   | PJM   |
|---------------|-------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|
| 8/25/00 11:42 | 38.68 | 28.32  | 29.84  | (3.00) | 6.52   | 344.79 | 265.70 | 263.34 | 263.15 | 268.08 | 268.09 | (3.02) | 317.10 | 39.93 | 53.03 |

In and of themselves, these prices tell us nothing about the identity of the marginal unit or units. What one can tell is that most likely there were at least two and potentially more than two marginal units in this interval. The marginal unit(s) could have been located in any one of the zones. A \$268.08 bid in NYC could be marginal at the same time as a \$344.79 bid in the Capital zone or a (\$3.00) bid in the North Zone. However, it is important to note that there does not have to be a \$344.79 bid in the Capital zone for the price to be set that high. In this particular case there were three marginal units, one East of Central East, and two West of Central East.

The zonal prices above indicate that if 1 MW of generation was injected in the Capital zone, the total cost of meeting load would decrease by \$344.79. The same MW of generation spread around the New York City zone would decrease the total cost of meeting load by \$268.08.

An injection of generation at a location electrically close to a constraint can have a big impact on the constraint. The electrical proximity of a location to a constraint is reflected in the shift factor of generation or load at that location on the constraint ( $SP_{jki}$ ). With Central East binding in this interval, locations electrically close to Central East, i.e. Capital zone locations, have the largest shift factors that help to relieve the congestion. Units in NYC have an impact on Central East but they are electrically more distant and their shift factors are correspondingly lower.

A MW of congestion relief provided by units East of Central East is valued by the shadow price of the constraint ( $SP_{jk}$ ) which represents the incremental value of an additional MW of transfer capability on the transmission facility. In simple terms, how much would the total cost of meeting load change if an additional MW of flow was allowed on the limiting transmission facility. If the shift factor for a unit East of Central East were 0.5 it would take 2 MW of generation at that location to relieve Central East by one MW.

This is the source of the price difference between the Capital zone and New York City. The shadow price of Central East was around \$500. A shift factor difference between the Capital zone and New York City of 0.16 would correspond to a price differential between the two zones of \$80. The price difference between the Capital zone (\$344.79 /MWh) and New York City (\$268.08 /MWh) is, indeed, around \$80. The high price in the Capital zone does not indicate the presence of market power. In fact, this price is set by the

competitive bidding of units all around the state with shift factors and shadow prices on the binding constraint transforming the marginal bids into LBMPs throughout the state.

Note that the locations that push hardest on Central East are those with the lowest prices as a free MW spread around these zones does little to reduce the total cost of meeting load. In this case, the North zone in fact exacerbates Central East to the extent that total cost actually increases by \$3.

### **3.3.2. Marginal Losses Component**

The marginal losses component of the LBMP at a bus is positive when a small increase in generation at the bus causes an overall decrease in transmission losses.

Conversely, the marginal losses component of the LBMP at a bus is negative when a small increase in generation at the bus causes an overall increase in transmission losses. The effect of generation on losses is measured in terms of delivery factors with respect to the reference bus.

The delivery factor is defined for a source of power and it equals the amount of power that could be delivered to a load at the reference bus if generation at the source is increased by 1 MW. When losses decrease, as a result of this specific power transfer, the delivery factor is greater than 1.0. When losses increase, as a result, the delivery factor is less than 1.0.

### **3.3.3. Marginal Congestion Component**

The marginal congestion component of the LBMP represents the combined effect of all the flow constraints in the NYCA. Congestion exists when either a flow is violating its limit or the flow is being held at its limit. Conceptually, to relieve an overload or to hold flow at its limit, we should attempt the following:

- Increase generation on the receiving side of the flow.
- Decrease generation on the sending side of the flow.

The NYISO currently manages only generation output, not load consumption; thus, the calculation of the marginal congestion component of the LBMP depends on the generator or Aggregation's effect on the constrained flow. This effect is called the generation shift factor (GF). Generator and Aggregation shift factors are applied to changes in area loads, external interchange schedules, and generation schedules. They are used to project the pre-contingency line flows used to analyze system security.

### **3.3.4. Transmission Nodes**

A Transmission Node is a point on the NYS Transmission System at which LBMP will be calculated for Aggregations. The NYISO DER and Aggregation participation model requires that individual DER and Aggregations be mapped to a Transmission Node. Each DER and Aggregation shall be assigned to a single

Transmission Node. For more information about Transmission Nodes please refer to the NYISO Aggregation Manual, available from the NYISO Web site at <https://www.nyiso.com/manuals-tech-bulletins-user-guides>.

### **3.4. Risk Management**

Market Participants of the NYISO electricity market have several ways to manage their exposure to the volatility of the LBMP market.

#### ***Load Serving Entity***

If you are an LSE, you can:

- Enter into a firm or a non-firm bilateral contract. The non-firm contract simply says that you will take power through the contract, only if doing so will not cause you to pay congestion charges.
- Lock the price for all or a portion of energy by bidding into the DAM, where it is expected that the volatility should be smaller than in the real-time market.
- Bid into the DAM using a price cap above which you do not wish to purchase energy day-ahead.
- Buy TCCs to manage the cost of congestion.

#### ***Generator and Aggregator***

If you are a Generator or an Aggregator, you can:

- Provide ICAP
- Supply energy, reserve or regulation, or any mix of these (within the limits of actual plant capability).
- Bid power into the DAM, the real-time market, the supplemental market, or you can provide power through a firm or a non-firm bilateral contract (subject to a conclusion of a private contract for the bilateral transaction).
- Satisfy your bilateral contract obligations entirely from your generation by specifying an appropriate price bid. Or, if you find it more economical, you can supply a part from the market and a part from your plant, with each portion determined automatically by the NYISO—based on your price bid. Please refer to Services Tariff Section 4.21.7. for details regarding Aggregation bilateral contracts.

## 4. NYISO Stakeholder Services

### 4.1. Introduction

The primary point-of-contact for information about the NYISO is the NYISO Stakeholder Services Department (<https://www.nyiso.com/support>). Stakeholder Services provides the following services to all interested parties:

- Provides reference links for NYISO documents such as the NYISO Agreement, the NYISO Tariffs, the NYISO Manuals, Application Forms, and Service Agreements (<https://www.nyiso.com/library>).
- Assists applicants in meeting the requirements for registration as a NYISO Customer and obtaining service under the NYISO Tariffs.
- Clarifies procedures and requirements defined in the NYISO documents.
- Explains bidding procedures.
- Defines which control center, communications, and metering requirements apply.
- Answers questions related to billing and accounting charges, payments, and penalties.

#### *Contacting NYISO Stakeholder Services*

The Stakeholder Services Help Desk is available to address routine business inquiries from 8:00 a.m. until 5:00 p.m., Monday through Friday. The Help Desk e-mail address is [stakeholder\\_services@nyiso.com](mailto:stakeholder_services@nyiso.com) and the telephone number is 518-356-6060. The Help Desk telephone will be answered 24-hours-a-day to address urgent, real-time issues, such as problems with access to the MIS. In the event that system conditions preclude NYISO staff immediately answering this telephone line, the caller can either leave a message or try again within a few minutes.

*US Mail and Express Package Delivery:*

**New York Independent System Operator**

c/o Stakeholder Services

10 Krey Boulevard

Rensselaer, NY 12144

#### *Specific Issues Support*

##### **Real-Time Curtailments**

Customers currently receive e-mail notification of transactions that have been curtailed in real time by the Interchange Scheduler Plus (IS+). These notifications provide the reason for the curtailment. More detailed information about real-time interface conditions is posted on the NYISO Web site at <http://mis.nyiso.com/public/htm/OperMessages/CurrentOperMessages.htm#disp>

Urgently needed clarification about real-time curtailments is available from the Operations Department 24-hours-a-day at 518-356-7540. This telephone number is for real-time curtailment inquiries only; all other requests will be directed to the Stakeholder Services Help Desk.

The real-time curtailment telephone line will be answered unless system conditions are such that all operators are otherwise engaged. In that event, the telephone line will be answered with a message that no operators are available. The caller can either try again within a few minutes or call the Stakeholder Services Help Desk line.

### ***Generating Unit Basepoints***

The NYISO Operations Department is available to talk directly to Generator operators or Aggregators if there is an urgent issue with basepoints that cannot be resolved through the TO. The telephone number for basepoint-related issues is 518-356-6028. All other types of questions will be directed to the Stakeholder Services Help Desk line. This basepoint telephone number will be answered 24 hours a day, unless system conditions are such that all operators are otherwise engaged.

## **4.2. Roles Related to the Market Information System**

The NYISO makes an important distinction between Administrators and Users. *Administrators* manage the operation of the MIS (Market Information System). The MIS is the secure portion of the Open Access Same-time Information System (OASIS, <https://www.nyiso.com/market-access-login1>) that is restricted to authorized customers who comply with registration requirements. *Users* is a generic term that refers the actual people or departments in an organization who actually access the MIS for some end-use purpose, such as:

- Submitting bids
- Changing bids
- Scheduling transmission
- Reviewing and interpreting bid results
- Reviewing and interpreting customer settlement data and statements
- Reviewing and interpreting public data

Through the use of either privileges or authorization flags, Administrators and Users — as well as Organizations, Generators, Load Buses — are granted permission to perform certain tasks in relation to the MIS.

Following are the three categories of Administrators/Users:

- **NYISO Administrator** – Personnel in the NYISO who control the accounts and permissions for all Eligible Customer and Guest organizations. The NYISO Administrator defines the total set of generators, Aggregations, and LSEs that each Eligible Customer and Guest organization can

access when establishing Market Participant Administrator and Market Participant User accounts.

- **Market Participant Administrator** – Individual(s) who is responsible for overseeing the MIS interface to the NYISO in a particular organization. The Market Participant Administrator authorizes the personnel (the Users) who use the MIS for that organization, and determines what data can be shared with other Market Participant Administrators.

The Market Participant Administrator ensures that User information is accurately maintained. Market Participant Administrators are registered with the NYISO. They may represent generators, LSEs, Marketers, or agents charged with administrative responsibility for one or more generators, Aggregations, and/or LSEs.

The assignments and permissions that Market Participant Administrators make are largely invisible to the NYISO Administrator.

- **Market Participant User** – Eligible Customer who is authorized, through its respective Market Participant Administrator, to submit and/or modify bids through the MIS or view Customer Settlement data. Each Market Participant User's interaction with the MIS is limited to a set of User permissions defined by the Market Participant Administrator. A Market Participant User may also be a Guest, which limits access to view-only privileges with the MIS.

Unless explicitly noted, all references to Generator displays in the MIS shall also apply to Aggregations. For example, an Aggregation's information may be accessed using the 'Generator Details' display.

#### **4.2.1. Changing Privileges/Authorizations, Contact Information, Market Participant Administrator and Organization Assignment, and Classifications**

Market Participant Administrators can modify the following data attributes:

- The privileges/authorizations assigned to their respective Users
- The contact information of their respective Users
- Their own contact information

Only a NYISO Administrator can modify the following data attributes:

- Privileges/authorizations assigned to Customer/Guest Organizations
- Privileges/authorizations assigned to MP Administrators
- Contact information of organizations, generators, Aggregators and LSEs

Assignment of MP Administrators to organizations

- Assignment of organizations to generators, Aggregators and LSEs

To request changes that can be made only by a NYISO Administrator, contact NYISO Stakeholder Services in one of the following manners:

E-mail: [stakeholder\\_services@nyiso.com](mailto:stakeholder_services@nyiso.com)

Regular Mail: New York Independent System Operator

C/o Stakeholder Services

10 Krey Boulevard

**Note:** Changes related to assignment of MP Administrators at the organizational level are handled as outlined under section 4.5.2, beginning on page 45.

### 4.3. Overview of NYISO Web site

The NYISO Web site, located at <https://www.nyiso.com/>, provides access to a variety of information on NYISO operations and the wholesale electricity markets in addition to serving as the entry point for participation in the markets themselves.

The home page of the NYISO Web site (see <https://www.nyiso.com/>) is divided into the following four main portals, each of which serves as an entry point to distinct categories of information or action, as follows:

#### ***About NYISO***

- NYISO's history and purpose
- The importance of reliability
- Market and planning fundamentals
- Industry links

#### ***Markets & Operations***

- Public (OASIS) data on the Energy, Ancillary Services, ICAP, TCC, and Demand Response markets, including pricing, power grid, and load data; zone maps; graphs; and various reports
- NYISO services, specifically, market training (including course literature), financial, NYISO registration, market monitoring, and reliability compliance
- Customer support
- Document library including the Market Services and Open Access Transmission tariffs; manuals, guides, and technical bulletins; legal and regulatory material; and studies and reports
- Committee material including calendar, meeting documentation, appeals to the board, and council information

**Note:** Access to Operating Committee materials requires a valid MyNYISO account (see [https://www.nyiso.com/login?p\\_p\\_id=com\\_liferay\\_login\\_web\\_portlet\\_LoginPortlet&p\\_p\\_lifecycle=0&\\_com\\_liferay\\_login\\_web\\_portlet\\_LoginPortlet\\_redirect=/support](https://www.nyiso.com/login?p_p_id=com_liferay_login_web_portlet_LoginPortlet&p_p_lifecycle=0&_com_liferay_login_web_portlet_LoginPortlet_redirect=/support))

- Planning resources including studies, reports, interconnection queue, forms, and conference and workshop materials
- Login access for the NYISO markets

**Note:** Login to the NYISO markets is initiated from secure areas of the NYISO Web site and requires that the user be properly registered with the NYISO and possess a valid digital certificate to the secure area in question. Once logged in, authorized users can submit and retrieve information as required to participate in the markets. Further information on digital certificates can be found in section 4.4.

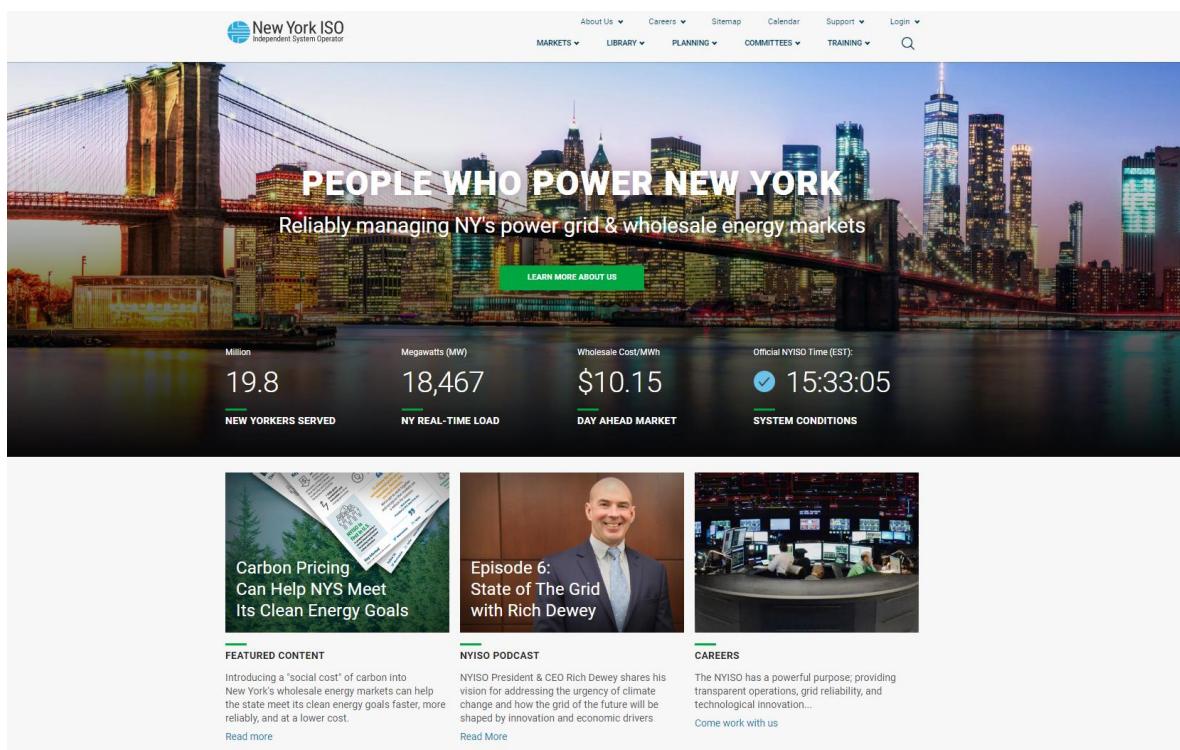
## **Planning for the Future**

- NYISO planning services
- New York State Energy Plan
- Planning-related issues and trends

## **NYISO's Media Room**

- Additions/changes to the NYISO Web site
- Press releases
- Issues and trends related to NYISO wholesale electricity markets

**Figure 11: NYISO Web Site Home Page**



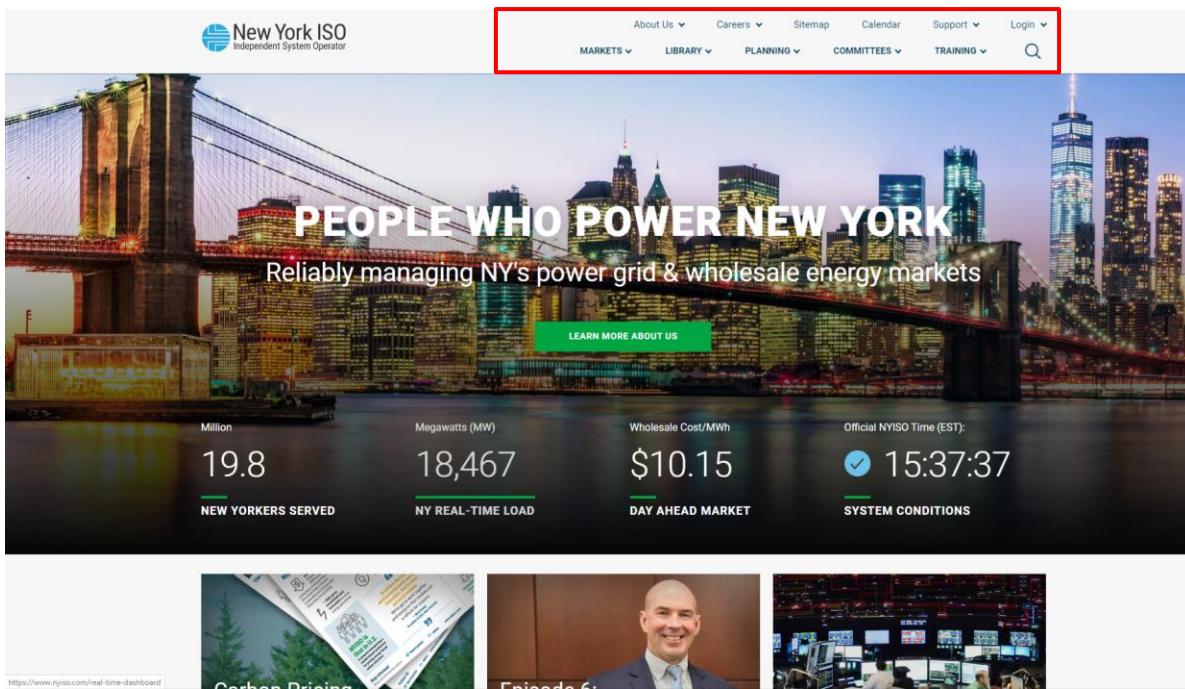
Positioning your mouse over any of the portal headers results in the expansion of the portal to display listings for the corresponding categories of information or action (see Figure 11 ). The page housing the desired information or providing for initiation of the desired action may then be accessed by clicking the applicable listing.

**Figure 12: Portal Header Expanded on NYISO Home Page**

The screenshot shows the NYISO Home Page with the portal header expanded. The header includes links for About Us, Careers, Sitemap, Calendar, Support, Login, MARKETS, LIBRARY, PLANNING, COMMITTEES, and TRAINING. Below the header is a dark blue navigation bar with three main sections: REAL-TIME DATA DASHBOARD, ENERGY MARKET & OPERATIONAL DATA, and INSTALLED CAPACITY MARKET (ICAP). The REAL-TIME DATA DASHBOARD section contains links for INTERACTIVE ENERGY PRICING MAP and SYSTEM CONDITIONS. The ENERGY MARKET & OPERATIONAL DATA section contains links for Pricing Data, Power Grid Data, Load Data, Reports & Info, Postings by Date, Custom Reports, and Ancillary Services. The INSTALLED CAPACITY MARKET (ICAP) section contains links for TRANSMISSION CONGESTION CONTRACTS (TCC), DISTRIBUTED ENERGY RESOURCES (DER), Demand Response, Behind-the-Meter Net Generation, and MARKET ACCESS LOGIN. Below the navigation bar is a large banner featuring a night view of a city skyline with a bridge. Overlaid on the banner are four data cards: NEW YORKERS SERVED (19.8 million), NY REAL-TIME LOAD (18,467 Megawatts (MW)), Wholesale Cost/MWh (\$10.15), and Official NYISO Time (EST) (15:34:36). At the bottom of the page are three small images: a document titled "Carbon Pricing", a portrait of a man, and a control room monitor.

Once you have navigated from the home page to any other page on the NYISO Web site, note that you may easily access additional pages housing related information by clicking the links in the navigation pane down the left side of the page (see Figure 12).

**Figure 13: Navigation Pane Along Top of a NYISO Web Page**



#### 4.4. Digital Certificates

In this section, the terms digital certificate and certificate are used interchangeably.

All users must have a valid digital certificate installed on their respective computers and on the browser of their choice that is linked to their MIS username in order to access the NYISO MIS and the Decision Support System (DSS). This will provide a secure connection between the NYISO's computer systems and the Market Participant's computer system.

Beginning May 15, 2017, NYISO will no longer be the issuer of digital certificates. External users, including systems, accessing NYISO applications are required by FERC Order 676-H to obtain a digital certificate through a North American Energy Standards Board (NAESB) third-party Accredited Certificate Authority (ACA) provider. Between June 15, 2016 and May 15, 2017 the NYISO will accept existing NYISO digital certificates as well as NAESB compliant digital certificates to allow for migration to the new digital certificate process. It is recommended that all new Market Participant organizations obtain NAESB compliant digital certificates using the process described below.

Any users or systems within a Market Participant organization which do not obtain a new NAESB compliant digital certificate through a certified third-party provider and link the certificate to their MIS user account will no longer have access to NYISO applications after May 15, 2017.

**Note:** Users with an existing NYISO digital certificate may continue to receive expiration and renewal notices during the transition period as part of the current renewal process. Please be aware, renewal of a NYISO digital certificate that sets the expiration date past the May 15, 2017 date will not allow access to NYISO applications past the May 15, 2017 date. All existing users and systems are required to obtain a NAESB compliant digital certificate using the new process in order to continue to access NYISO applications following the May 15, 2017 date. NYISO digital certificates will no longer allow access to NYISO applications following the May 15, 2017 date.

The following sections detail the new process for obtaining and using a NAESB compliant digital certificate.

Please note that digital certificates are not required to access public data in OASIS.

#### **4.4.1. Obtaining a NAESB Compliant Digital Certificate**

Digital certificates are issued by a third-party NAESB ACA. A list of approved ACA's can be found at <https://www.naesb.org/materials/certification.asp>. Prior to purchasing a digital certificate from an ACA, Market Participant organizations, or the Parent organization, must be registered on the NAESB Electric Industry Registry (EIR). Once registration on the EIR is complete, the Market Participant should contact NYISO Stakeholder Services to provide the organization's EIR Entity Name and/or EIR Record ID.

Additional EIR registration information can be found at:

<https://www.naesbwry.oati.com/NAESBWRY/sys-index.wml>

A NAESB compliant digital certificate may be purchased from the third-party ACA of the Market Participant's choosing. A certificate is required for each user wishing to access a NYISO application. Users representing multiple organizations are required to purchase a unique certificate for each MIS user ID. When purchasing a certificate, each certificate must match the EIR Entity Name exactly as it appears in the EIR.

Entities acting as a Financially Responsible Party or Scheduling/Bidding Agent on behalf of a Market Participant can allow the Market Participant to obtain NAESB compliant digital certificates in the name of the Financially Responsible Party or Scheduling/Bidding Agent, provided both parties are in agreement and complete NYISO-provided documentation authorizing them to do so. In that instance, all users representing the Market Participant would be required to obtain a NAESB compliant digital certificate in the name of the Financially Responsible Party or Scheduling/Bidding Agent.

Conversely, a Financially Responsible Party or Scheduling/Bidding Agent can obtain NAESB compliant digital certificates in the name of the Market Participant provided both parties are in agreement and complete NYISO-provided documentation authorizing such. In that instance, all users employed by the

Financially Responsible Party or Scheduling/Bidding Agent would be required to obtain a NAESB compliant digital certificate in the name of the Market Participant.

Additional NAESB compliant digital certificate information can be found at:

<https://www.naesb.org/materials/certification.asp> Digital certificates must be installed on each browser or system used to access a NYISO application.

#### **4.4.2. Linking a NAESB Compliant Digital Certificate**

Once a NAESB compliant digital certificate is obtained, it must be linked to the user's NYISO MIS account via password and PIN before accessing NYISO applications. For information on establishing an MIS Administrator or MIS user account see Sections 4.2 Roles Related to the Market Information System, Section 6 Market Participant Administrator Tasks, and Section 7 Market Participant User Tasks.

All MIS users and MIS Administrators must link their certificate to their MIS account prior to accessing secured NYISO applications. For MIS user accounts, the certificate must match the EIR Entity Name on file with NYISO for the user's organization. For MIS Administrator accounts, the certificate must match the EIR Entity Name on file with NYISO for the MIS Administrator account.

A single digital certificate linked to a single MIS Administrator account may be used to administer multiple organizations.

A valid direct dial, no extension, phone number is required for the linking process. An organization may use the same phone number for multiple users, but be aware that specific security information relating to digital certificate linking and password management is included in the messaging. Messages will not identify who initiated the request. Therefore, it may be preferable, but is not required, that this number be unique to the user.

#### **Prerequisites**

Before linking a NAESB compliant digital certificate the following prerequisites must be completed:

- The user is in possession of their MIS user ID and password.
- The MIS account has a valid direct dial contact phone number.
- The user has installed their NAESB compliant certificate in their web browser.
- The certificate specifies the MP's EIR Entity Name associated with their MIS organization; or MIS Administrator account if an administrator.



#### **To Link a Digital Certificate**

1. Navigate to the NYISO Self-Service Account Management (SSAM) application located on the NYISO Market Access Login page at:

[http://www.nyiso.com/public/markets\\_operations/market\\_data/market\\_access\\_login/index.jsp](http://www.nyiso.com/public/markets_operations/market_data/market_access_login/index.jsp).

2. Select the desired certificate from a list if prompted.
3. Select the “Link Certificate” option.
4. Select voice or text method to receive PIN.
5. Once PIN is received, enter PIN into the SSAM when prompted.

#### **4.4.3. Using a NAESB Compliant Digital Certificate**

Once a NAESB compliant digital certificate is linked to an MIS user account it can be used to log into NYISO applications. Until May 15, 2017, if a current NYISO certificate and a NAESB compliant certificate are both installed in the browser, then the browser will prompt for selection of the specific certificate to be used. If the NAESB certificate is selected, the application login page will pre-populate with the MIS user ID linked to the NAESB complaint certificate. Only this account can be used with the selected certificate.

**Access to NYISO applications, excluding DSS:** Enter the MIS password for the user ID to login to the application.

#### **Access to NYISO DSS application:**

Individuals that desire access to the NYISO DSS must register for an account and be approved by their organization’s DSS Administrator. Registration is through the NYISO OASIS page of the NYISO Web site. From the OASIS page, activate the **Market Access** tab, then activate the **Account Request** link located under the DSS heading. This process is outlined in Technical Bulletin 109, available from the NYISO Web site at the following URL: <https://www.nyiso.com/manuals-tech-bulletins-user-guides>.

Following May 2017, access to DSS will require linking to the user's MIS account. For information on establishing an MIS user account see Sections 4.2 Roles Related to the Market Information System, Section 6 Market Participant Administrator Tasks.

Once the user DSS account is established, enter the DSS user ID and password to login to the application.

**Automated Application access:** Applications within an MP organization may directly access NYISO applications. However, a NAESB compliant digital certificate must first be linked to the MIS account being used by the organization’s application.

### **4.5. Updating Generator and Aggregation Limits, Physical Parameters, and Authorization Flags**

Market Participant Administrators and Users do not have the ability to update generator limits, physical parameters, or authorization flags through the MIS. Rather, the NYISO must perform these updates

because the parameters are modeled in several software programs administered by different NYISO departments, and by retaining control of the update process, the NYISO can ensure that all the programs process the data in an identical and accurate manner.

Dispatch-only units do not submit Unit Commitment Data.

#### **4.5.1. Updating Generator Limits, Physical Parameters, and Authorization Flags**

To update generator limits, physical parameters, and/or authorization flags, the designated generator contact must contact the NYISO Administrator. Most requests will be implemented within five days.

The new data must be supplied to NYISO Stakeholder Services by e-mail, or regular mail. This correspondence should be titled with the Generator point identifier (PTID) and "Generator Parameter Change" to flag the message as time sensitive. Stakeholder Services can be contacted as follows:

E-mail: [stakeholder\\_services@nyiso.com](mailto:stakeholder_services@nyiso.com)

Regular Mail: New York Independent System Operator  
c/o Stakeholder Services  
10 Krey Boulevard  
Rensselaer, NY 12144

The following parameters can be updated in three business days.

- Minimum generation (MW)
- Energy, operating reserve, regulation capacity (MW/minute), and regulation movement (MW/6 seconds) response rates

**Note:** Up to three energy response rates may be specified for generating units

- Qualified Automatic Voltage Regulator (AVR), if supporting documentation is provided.

The following parameters can be updated in five business days.

- Generator Penalty Factor
- Generator Power Factor

**Note:** The preceding two parameters are updated via means other than the MIS. Specifically, the Generator Penalty Factor is updated via the RTD program, whereas the Generator Power Factor is supplied by TOs.

Changes to the following parameters become effective January 1 of the year following the year during which the related required test is performed and approved:

- Unit Volt-Ampere Reactive (VAR) Capability, Leading
- Unit VAR Capability, Lagging

**Special Note:** Changes to the seasonal maximum operating limits for winter or summer, which can be increased to a generator or Aggregation's Proven Maximum Production Capability, must instead be made using the process described in "[Bidding Above ICAP DMNC](#)," beginning on page [129](#)

#### **4.5.2. Updating Aggregation Limits, Physical Parameters, and Authorization Flags**

Please refer to the Aggregation System User's Guide and Aggregation Manual for detailed instructions.

### **4.6. Changing Market Participant Administrators**

Market Participant MIS Administrator names that are included in the registration application will be activated through the registration process. When activated, they will be initially associated with the organization identified in the application.

To change the MIS Administrator contact role, the Market Participant's Member Community Administrator must change the MIS Administrator contact role in the Member Community. Once the change has been fully processed by NYISO, the Market Participant will receive an email from Stakeholder Services outlining the next steps required for access to MIS. Instructions for using the Member Community, including contact role management, may be found within the NYISO Member Community Reference Guide.

To set up Member Community access, a Market Participant's Main Contact must submit a completed Member Community Usage Agreement and Administrator Designation form to NYISO Stakeholder Services.

## **5. Oasis and Market Data**

### **5.1. Introduction**

The OASIS and Market Data links on the NYISO Web site will take you to the same page.

The OASIS page provides access to market applications, maps, graphs, and publicly accessible pricing, power grid, and load data. Day-Ahead LBMP data is made available at the end of the day, while the real-time LBMP data is available after the hour. All other information is posted daily or subsequent to the latest updates.

The data available through the OASIS page may be viewed through a Web browser or downloaded. Data files are available in the following formats: Comma Separated Value (\*.CSV), Hypertext Markup Language (\*.HTML), Portable Document Format (\*.PDF) and often Text (\*.TXT) formats. Both \*.PDF and \*.CSV files may be saved to a User's local drive and/or printed. Where appropriate, the formats associated with the data files are described in the sections below. Descriptions of data formats consist of the column headers that will appear in downloaded \*.CSV files.

### **5.2. Types of Data Available**

The OASIS/MDEX page is organized into the following broad categories and is arranged by seven corresponding tabs at the top of the page as depicted in Figure 14.

**Figure 14: OASIS/MDEX page**

**Pricing Data** — Day-Ahead and Real-Time Market LBMPs, Time-weighted/Integrated Real-Time LBMP, Balancing Market (Hour-Ahead) Advisory Prices, Ancillary Service Prices, Reference Bus LBMP, Price Correction Logs, and TSC & NTAC Rates.

**Power Grid Data** — Outages and Outage Schedule, Constraints, Interface Flows, PARs, ATC/TTC.

**Load Data** — NYISO Load Forecast, Zonal Load Commitment, Real-Time Actual and Integrated Real-Time Actual Load, Load and SCUC Forecast Data - Monthly Data Postings, and Current Hourly Loads.

**Reports & Information** — Daily Energy Report, NYISO Capacity Report, Real-Time Events, Generator, Load and TO information, Operational Announcements, Dispatcher Notices, Bid Data, Operating Studies, System Reliability & Impact Studies, Generator, Active Transmission Nodes and Load Names, Subzone Information, Balancing Market Advisory Summary, Major Emergency Events, Generation Economic Dispatch Analysis, Notice of Discretionary Acts, MP RTD Correction Reports.

**Zone Maps** — Day-Ahead, Hourly Advisory and Real-Time LBMP, and Load Flows.

**Graphs** – Day-Ahead, Hourly Advisory and Real-Time Zonal LBMP, Zonal Actual vs. Forecast Load, Interface Flows, and Zonal Load vs. LBMP.

**Market Access** – Bidding and Scheduling, DSS, ICAP Automated Market, SDX Settlement Data Exchange, Finance API, MIS Instructions, and TCC Automated Market.

### 5.3. Viewing and Downloading Data through Web Browsers

Access to OASIS public information begins through the NYISO Home Page (<https://www.nyiso.com/>).

Choosing *OASIS* brings up the display illustrated in Figure 15.

**Figure 15: NYISO MDEX display**

The screenshot shows the NYISO MDEX display. At the top, there is a navigation bar with links for About Us, Careers, Sitemap, Calendar, Support, and Login. Below the navigation bar, there is a search bar. The main content area has a header "ENERGY MARKET & OPERATIONAL DATA". On the left, there is a sidebar with a "Markets" section containing links for Real-Time Dashboard, Interactive Energy Pricing Map, System Conditions, Energy Market & Operational Data (which is expanded to show Pricing Data, Power Grid Data, Load Data, Reports & Info, Postings by Date, Custom Reports, Ancillary Services, Installed Capacity Market (ICAP), Transmission Congestion Contracts (TCC), Distributed Energy Resources (DER), and Market Access Login). The main content area has four sections: "Pricing Data" (with sub-sections for Day-Ahead Market LBMP, Real-Time LBMP, Real-Time Market Time-Wt/Int LBMP, and Ancillary Services), "Real-Time LBMP" (with sub-sections for Zonal, Generator All, Generator 00-07, Generator 08-15, and Generator 16-23), and "Ancillary Services" (with sub-sections for Real-Time and Day-Ahead). There are also two boxes on the right: "Contact Customer Support" (with email address stakeholder\_services@nyiso.com) and "Useful Links" (with link to State of the Market Report).

The general steps for viewing or downloading data are as follows:

- Select one of the tabs for the category display you want to view.
- Select the link to the display that you want to view. For example, on the OASIS Pricing Data page, choose the DAM LBMP Zonal link.

This typically opens a list of available dates in the window. The dated material may be available in one or more of the three formats illustrated in Figure 16.

**Figure 16: Lists of data available in three formats**

| <b>CSV Files</b>           | <b>HTML Files</b>          | <b>PDF Files</b>           | <b>Last Updated</b> |
|----------------------------|----------------------------|----------------------------|---------------------|
| <a href="#">02-25-2004</a> | <a href="#">02-25-2004</a> | <a href="#">02-25-2004</a> | 02/24/04 09:54 EST  |
| <a href="#">02-24-2004</a> | <a href="#">02-24-2004</a> | <a href="#">02-24-2004</a> | 02/23/04 09:55 EST  |
| <a href="#">02-23-2004</a> | <a href="#">02-23-2004</a> | <a href="#">02-23-2004</a> | 02/22/04 10:17 EST  |
| <a href="#">02-22-2004</a> | <a href="#">02-22-2004</a> | <a href="#">02-22-2004</a> | 02/21/04 10:02 EST  |
| <a href="#">02-21-2004</a> | <a href="#">02-21-2004</a> | <a href="#">02-21-2004</a> | 02/20/04 10:04 EST  |
| <a href="#">02-20-2004</a> | <a href="#">02-20-2004</a> | <a href="#">02-20-2004</a> | 02/19/04 10:03 EST  |
| <a href="#">02-19-2004</a> | <a href="#">02-19-2004</a> | <a href="#">02-19-2004</a> | 02/18/04 10:05 EST  |

Select the date you wish to view in the desired format (\*.CSV, \*.HTML, or \*.PDF files). This will open the display for that specific date (see Figure 16).

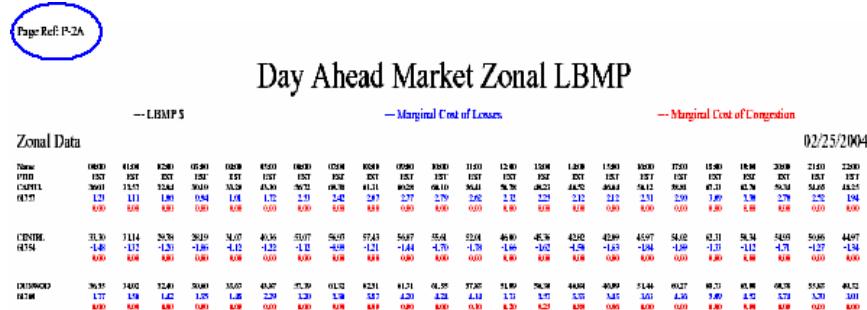
**Note:** In some cases, selecting the link goes directly to the desired information.

After selecting \*.CSV files, Users may be prompted to save data to their local hard drives. To download data, select a location to store the data file(s) to and select “Save.”

A unique identifier (or page reference) is shown on the upper left-hand corner of the HTML and PDF link's display page. For example:

- P-2A is the DAM LBMP - Zonal display
- P-7 is the NYISO Load Forecast display

**Figure 17: Unique identifier (Page Reference) shown on display page**



The remainder of section 5 describes the individual displays and data, which can be viewed through a Web browser and/or downloaded. Where appropriate, data formats are described.

## 5.4. Pricing Data

On the OASIS page, under the *Pricing Data* tab (see Figure 18) the categories of information discussed in Sections [5.4.1](#) through [5.4.6](#) may be accessed.

**Figure 18: Pricing Data tab access**

The screenshot shows the New York ISO website's Markets & Operational Data section. At the top, there is a navigation bar with links for About Us, Careers, Sitemap, Calendar, Support, and Login. Below the navigation bar, there are dropdown menus for MARKETS, LIBRARY, PLANNING, COMMITTEES, and TRAINING. On the left, a sidebar lists various market-related links, including Real-Time Dashboard, Interactive Energy Pricing Map, System Conditions, Energy Market & Operational Data (which is expanded to show Pricing Data, Power Grid Data, Load Data, Reports & Info, Postings by Date, Custom Reports, and Ancillary Services), Installed Capacity Market (ICAP), Transmission Congestion Contracts (TCC), Distributed Energy Resources (DER), and Market Access Login. The main content area features a large heading 'ENERGY MARKET & OPERATIONAL DATA'. Below the heading, a sub-section titled 'Pricing Data' is highlighted with a blue circle. This section contains three tables: 'Day-Ahead Market LBMP' (with rows for Zonal, Generator All, and Reference Bus), 'Real-Time LBMP' (with rows for Zonal, Generator All, Generator 00-07, Generator 08-15, and Generator 16-23), and 'Real-Time Market Time-Wt/Int LBMP' (with rows for Zonal, Generator, and Reference Bus). To the right of these tables, there are two boxes: 'Contact Customer Support' with the email stakeholder\_services@nyiso.com and 'Useful Links' which includes a link to the State of the Market Report.

### 5.4.1. Day-Ahead Market LBMP

The DAM LBMP data is organized by Zonal, Generator, and Reference Bus. Each display provides the information below for each hour of the selected day. This data is posted at approximately 11:00AM.

- LBMP (\$/MWH)
- Marginal Cost of Losses (\$/MWH)
- Marginal Cost of Congestion (\$/MWH)

### 5.4.2. Real-Time Market LBMP

The Real-Time Market LBMP data is organized by Zonal, and Generator Prices. Each display provides the information for each execution of the RTD program (approximately every five minutes) for the selected day.

- LBMP (\$/MWH)
- Marginal Cost of Losses (\$/MWH)
- Marginal Cost of Congestion (\$/MWH)

Due to the volume of information, the Zonal data is provided in \*.CSV format only.

**Note:** Daily RT Generator LBMP information is broken into three files: HB00-07, HB08-15, and HB16-23.

#### **5.4.3. Time-Weighted/Integrated Real-Time LBMP**

The Time-Weighted/Integrated Real-Time LBMP data organized by Zonal, Generator, and Reference Bus. The data is posted approximately five minutes after the hour.

This is a scrollable display providing three sets of hourly time-weighted/integrated information for each of the 15 Load Zones for each hour of the selected day.

- LBMP (\$/MWhr)
- Marginal Cost of Losses (\$/MWhr)
- Marginal Cost of Congestion (\$/MWhr)

#### **5.4.4. Balancing Market (Hour-Ahead) Advisory Prices**

The Balancing Market (Hour-Ahead) LBMP data organized by Zonal, Generator, and Reference Bus. RTC advisory zonal prices are posted each 15 minutes (looking out 2 ½ hours).

- LBMP (\$/MWhr)
- Marginal Cost Losses (\$/MWhr)
- Marginal Cost Congestion (\$/MWh)

#### **5.4.5. Ancillary Services**

The Ancillary Services are organized by Day-Ahead, Hour-Ahead, and Real-Time Markets. Ancillary Service Prices are posted for each Load Zone.

##### ***Day-Ahead Market***

The DAM Ancillary Service Prices are posted at approximately 11AM and provide the following prices:

- Regulation (\$/MWhr) for NYCA (This is the Regulation Capacity Price)
- 10-Min Spinning Reserve (\$/MWhr) by Load Zone
- 10-Min Non-synchronous Reserve (\$/MWhr) by Load Zone
- 30-Min Operating Reserve (\$/MWhr) by Load Zone

### **Hour-Ahead Market**

- The Hour-Ahead Market Ancillary Service Prices are posted for each RTC interval approximately 75 minutes before the interval and provide the following prices:
  - Regulation (\$/MWhr) for NYCA (This is the Regulation Capacity price)
  - 10-Min Spinning Reserve (\$/MWhr) by Load Zone
  - 10-Min Non-synchronous Reserve (\$/MWhr) by Load Zone
  - 30-Min Operating Reserve (\$/MWhr) by Load Zone
  - Regulation Movement (\$/MW) for NYCA

### **Real-Time Market**

The Ancillary Service Prices for the real-time market for the selected date are posted every five minutes and provide the following prices:

- Regulation (\$/MWhr) for NYCA (This is the Regulation Capacity price)
- 10-Min Spinning Reserve (\$/MWhr) by Load Zone
- 10-Min Non-synchronous Reserve (\$/MWhr) by Load Zone
- 30-Min Operating Reserve (\$/MWhr) by Load Zone
- Regulation Movement (\$/MW) for NYCA

#### **5.4.6. Additional Market Pricing Data**

##### **Price Correction Logs**

The information contained in the Correction Logs is gathered from the Operational Announcements. These notices provide details on price corrections taken by the NYISO.

##### **TSC and NTAC Rates**

TSCs and NTAC rates are posted for all TOs. The file containing the TO's TSC is displayed as a \*.PDF file. The file displays in the following format:

**Note:** Energy exports to ISO- New England are not assessed TSC or NTAC charges.

### **5.5. Power Grid Data**

On the OASIS page, under *Power Grid Data* (see Figure 19) the categories of information discussed in Sections [5.5.1](#) through [5.5.5](#) may be accessed.

**Figure 19: Power Grid Data Tab Access**

The screenshot shows the New York ISO website's navigation bar at the top, with links for About Us, Careers, Sitemap, Calendar, Support, and Login. Below the navigation is a breadcrumb trail: MARKETS / ENERGY MARKET & OPERATIONAL DATA / POWER GRID DATA. To the right is a contact form for 'Customer Support' with the email stakeholder\_services@nyiso.com. The main content area is titled 'POWER GRID DATA'. On the left, a sidebar lists various market-related links, with 'Power Grid Data' circled in blue. The central area contains several tables under the 'OASIS Links' heading, with the 'Outages' table highlighted by a red box. The 'Outages' table has columns for Date, Download, and Last Updated, listing scheduled outages from February 23 to 28, 2020.

| Date              | Download           | Last Updated       |
|-------------------|--------------------|--------------------|
| February 28, 2020 | <a href="#">sv</a> | 02/27/20 09:42 EST |
| February 27, 2020 | <a href="#">sv</a> | 02/26/20 09:41 EST |
| February 26, 2020 | <a href="#">sv</a> | 02/25/20 09:42 EST |
| February 25, 2020 | <a href="#">sv</a> | 02/24/20 09:41 EST |
| February 24, 2020 | <a href="#">sv</a> | 02/23/20 09:44 EST |
| February 23,      | <a href="#">sv</a> | 02/22/20 09:45     |

### 5.5.1. Outages

#### ***Day-Ahead Scheduled Outages***

The Day-Ahead Scheduled Outages are the Hourly Scheduled Outages in SCUC. The list consists of "A-1 and A-2" facilities that impact Transmission Interface Limits.

#### ***Real-Time Scheduled Outages***

The Real-Time Scheduled Outages are the Hourly Scheduled Outages in RTC & RTD. The list consists of "A-1 and A-2" Facilities that impact Transmission Interface Limits.

#### ***Real-Time Actual Outages***

The Real-Time Actual Outages are the Actual Outages (and Actual Cessation of Outages) on an interval basis. The list consists of "A-1 and A-2" Facilities that impact Transmission Interface Limits.

## ***Outage Schedule***

The Outage Schedule summarizes the information described in the previous sections. The outage schedule is available from the NYISO Web site at the following URL, under the *Outages* folder:

<https://www.nyiso.com/power-grid-data>.

### **5.5.2. Constraints**

#### ***Limiting Constraints***

Limiting constraints are the Real-Time constraints causing system congestion for each RTD interval.

#### ***DAM Limiting Constraints***

DAM Limiting constraints are the Day-Ahead hourly constraints in SCUC.

### **5.5.3. Interface Flows**

#### ***Internal/External Limits and Flows***

Internal/ External Interface Limits and Flows consist of hourly limits (for all major internal interfaces, HQ, NE, PJM, and OH) and flows (for HQ, NE, PJM, and OH) in SCUC and time-weighted average hourly flows (for the same interfaces) in RTD. The data is posted at least day-after or sooner.

### **5.5.4. PARs**

#### ***PAR Schedules***

PAR Schedules consists of information for external and internal TIE PARs identified by PTID. The data represents hourly schedules in SCUC and time-weighted hourly schedules in RTD, posted day-after or sooner.

#### ***PAR Flows***

PAR Flows consists of information for external and internal TIE PARs identified by PTID. The data represents hourly flows in SCUC and time-weighted hourly flows in RTD, posted day-after or sooner.

#### ***DAM PAR Schedule Diagrams***

Schedule diagrams are visual representations of the data described in section 5.5.4.

### **5.5.5. ATC/TTC**

#### ***ATC/TTC***

Available Transfer Capability/Total Transfer Capability (ATC/TTC) is provided for the selected day. The DAM information is posted at approximately 11:00AM each day and the HAM information is posted approximately 30 minutes before the hour.

The display is divided into sections that correspond to the twelve NYISO Interfaces. There are 24 hourly entries for each interface. Hot keys are provided to enable you to jump directly to the first hour of a selected Interface or back to the top of the display.

#### ***Preschedule ATC/TTC***

This data represents the ATCs and TTCS for the time horizon covering two days ahead through eighteen months ahead.

#### ***TRM/CBM***

This pdf file shows the NYISO Transmission Reliability Margin and Capacity Benefit Margin used in determining Available Transfer Capability.

#### ***Transfer Limitations***

NYISO Transfer Limitations may be viewed in either .PDF or .CSV format, both of which are available from the NYISO Web site at the following URL under the *Constraints* folder:

<https://www.nyiso.com/power-grid-data>

#### ***Transmission Service Request Metrics***

This provides information related to the NYISO's handling of this data.

#### ***Transmission Study Reports***

This is a link to the NYISO Planning Department's Web page.

### **5.6. Load Data**

On the OASIS page, under *Load Data* (see Figure 20), the categories of information discussed in Sections [5.6.1](#) through [5.6.3](#) may be accessed.

**Figure 20: Load Data Tab Access**

The screenshot shows the New York ISO website's 'LOAD DATA' page. The left sidebar has a blue oval highlighting the 'Load Data' link under 'Energy Market & Operational Data'. The main content area includes:

- Load Forecast:** NY Load Forecast, Zonal Load Commitment, Load Forecast Weather Data.
- Actual Load:** Real-Time, Integrated Real-Time.
- Related Documents:** Actual Load, NYISO Hourly Loads.
- Load-SCUC Monthly Forecast:** A table with columns Name, Published, and Type, showing years from 2005 down to 2002.

### 5.6.1. Load Forecast/Commitment

#### ***ISO Load Forecast***

The ISO Load Forecast is posted at approximately 8:00 AM each day, providing a forecast looking out six days.

#### ***Zonal Load Commitment***

The Zonal Load Commitment displays the amount of hourly load committed in the DAM by zone.

### 5.6.2. Actual Load

#### ***Real-Time Actual Load***

This display posts the actual measured load for each RTD interval (5 minutes) by zone. Actual loads are calculated as generation plus net interchange for each zone, based on real-time telemetered data.

### ***Integrated Real-Time Actual Load***

The Integrated Real-Time Actual Load is posted after each hour and represents the time-weighted hourly load for each zone.

### ***Load and SCUC Forecast Data/Monthly Data Postings***

Available data through January 2005. This data will not be posted after January 2005 because actual loads for Zones J & K are posted each day from February 1, 2005 onward.

#### **5.6.3. Current Hourly Load**

The current hourly load is available from the NYISO Web site at the following URL, under the *Actual Load* folder: <https://www.nyiso.com/load-data>.

## **5.7. Emissions Data**

On the OASIS page, under ***Emissions Data***, the information discussed in Section 5.7.1 and Section 5.7.2 may be accessed.

### **5.7.1. Day-Ahead and Real-Time Implied Marginal Emission Rates (IMER)**

The Implied Marginal Emission Rates (IMER) are estimated and available on a zonal level for the DAM and RTM.

### **5.7.2. Average Emission Rates (AER) Hourly NYCA and NYC Calculator**

The AER calculator assists users to determine NYCA-Wide and NYC AER by inputting emission intensity values for imports. The user selects the type of AER calculator to be utilized by selecting the NYCA or NYC option from the dropdown menu. The user input fields are Emission Intensity (tons CO<sub>2</sub> per MWh) and Emission Intensity (tons NO<sub>x</sub> per MWh).

## **5.8. Reports and Information**

On the OASIS page, under ***Reports/Info*** (see Figure 21) the reports and information discussed in sections **5.8.1** through **5.8.3** may be accessed:

**Figure 21: Reports/Info tab access**

The screenshot shows the New York ISO website's navigation bar at the top, followed by a breadcrumb trail: MARKETS > ENERGY MARKET & OPERATIONAL DATA > REPORTS & INFO. The main content area is titled "REPORTS & INFO". On the left, a sidebar menu includes "Markets", "Real-Time Dashboard", "System Conditions", "Energy Market & Operational Data" (which is expanded to show "Pricing Data", "Power Grid Data", "Load Data", and "Reports & Info", the latter of which is circled in blue), "Postings by Date", "Custom Reports", "Ancillary Services", "Installed Capacity Market (ICAP)", and "Capacity Accreditation". Below this is "Transmission Congestion Contracts (TCC)", "Distributed Energy Resources (DER)" (expanded to show "Demand Response" and "Behind-the-Meter Net Generation (BTMNG)"), and "Market Access Login". The right side features three panels: "Capacity, Energy and Market Advisory" (with sections for NYISO Capacity, Daily Energy, and Balancing Market Advisory), "Events, Announcements and Fuel Mix" (with sections for Real-Time Events, Operational Announcements, Operator Initiated Commitments, and Real-Time Fuel Mix), and "Links" (with sections for Reports, DOE EIA 930, Uplift Reports, BTM Solar Information, General Information, and various links like NYCA ACE Data, NYISO Bid Data, External Transaction TSC-Summary & Details, etc.).

### 5.8.1. Reports

#### *NYISO Capacity Report*

The Capacity Report summarizes NYCA and external interface system information.

### ***Daily Energy Report***

This shows in aggregated MWs NYISO and Customer Load forecasts, load, bilateral, price-capped, and virtual load bids, as well as generation bids, virtual supply bids, total generation, imports, exports, and wheel-throughs.

### ***Balancing Market Advisory Summary***

The Balancing Market Advisory Summary contains hourly values for operational and transaction data.

### ***Summary w/ Most Recent DNIs***

This summary report contains hourly DNI (Desired Net Interchange) values for net imports.

### ***Major Emergency Events***

These reports describe the cause, explain the corrective action taken, and log the termination time for all Major Emergencies declared by the NYISO.

### ***Real-Time Events***

This summary report, posted in Real-Time, provides notification whenever a:

- Major Emergency occurs
- RPU occurs
- Thunderstorm Alert occurs

### ***Operational Announcements***

The operational announcement section is divided into three sections:

- Dispatcher Notices
- Committed for Reliability
- Market Monitor Notices

### ***Generation Economic Dispatch Analysis***

These charts allow Users to view and analyze a daily chart of NYISO's actual physical RTD vs. ideal economic dispatch.

### ***Notice of Discretionary Acts***

These notices provide details on discretionary actions taken by the NYISO.

### ***Market Participant RTD Correction Report (multi-year)***

This contains a table of real-time energy price errors by date, interval, and zone for each year. The sources of the errors and the correction modes used are shown with comments.

### ***Weekly Pricing Report***

Provides current week pricing for wholesale electricity for the eleven zones within New York State.

#### **5.8.2. Operational Studies and Systems Performance Reports**

##### ***Operational Studies & Reports***

This report provides a list of all seasonal operating study and system performance reports provided by the NYISO from 1999 through the present.

##### ***Summary of NYISO Operating Limits***

This report provides a summary of NYISO Operating Limits and Stability Summary Report.

##### ***Physical Minimum Generation Level Qualifying 10-Minute Resources for RTD Scheduling***

Pursuant to tariff definitions, the NYISO has established the ***upper bound*** of the physical Minimum Generation Level specified by ten minute resources at 80 MW. Ten minute Resources registering their physical minimum generation limit with the NYISO as 80 MWs or less will be eligible for scheduling by the Real-Time Dispatch.

#### **5.8.3. General Information**

##### ***NYISO Bid Data-3-Month Release***

These files are masked Market Participant data released to the public displaying Unit Commitment Data and bids for Generators, Loads, Transactions, TCCs, and ICAP.

##### ***ICAP Gen Unit Maintenance Coordination Survey***

This survey provides weekly forecasted ICAP and Load Maintenance Survey values for the current year.

##### ***External Transaction TSC-Summary and Details***

These files provide TSC Rates (On Peak & Off Peak) for externals at summary (zonal) and detail (generator) levels. Also monthly TSC and NTAC rates.

### ***NYISO Locational Reserve Requirements***

This summary details 10-minute spinning reserve, 10-minute total reserve, and 30-minute locational reserve requirements for the NYCA, Eastern New York, Southeastern New York and Long Island.

### ***NYISO Regulation Requirements***

This summary report provides the hourly regulation requirements, by weekdays and Sundays, for all months of the year.

### ***Facilities Subject to NYISO Control and Notification***

This report lists NYISO secured transmission facilities.

### ***Generator Names***

Generator Names provide names, PTIDS, and locations (zone and subzone) of all Generators in the NYCA.

### ***Load Names***

Load Names provides names, PTIDs, and locations (zone and subzone) for all Loads in the NYCA.

### ***Active Transmission Nodes***

Active Transmission Nodes provides info about the Transmission Nodes that are currently active. It provides a list of node names, PTIDs, the associated subzone and zone.

### ***Transmission Owner Info***

Transmission Owner info provides links to NYISO's current Transmission Owner Web sites.

### ***Subzones by Transmission Owner***

Subzones by Transmission Owners provide a list of subzones by TO/Metering Authority and the associated zone.

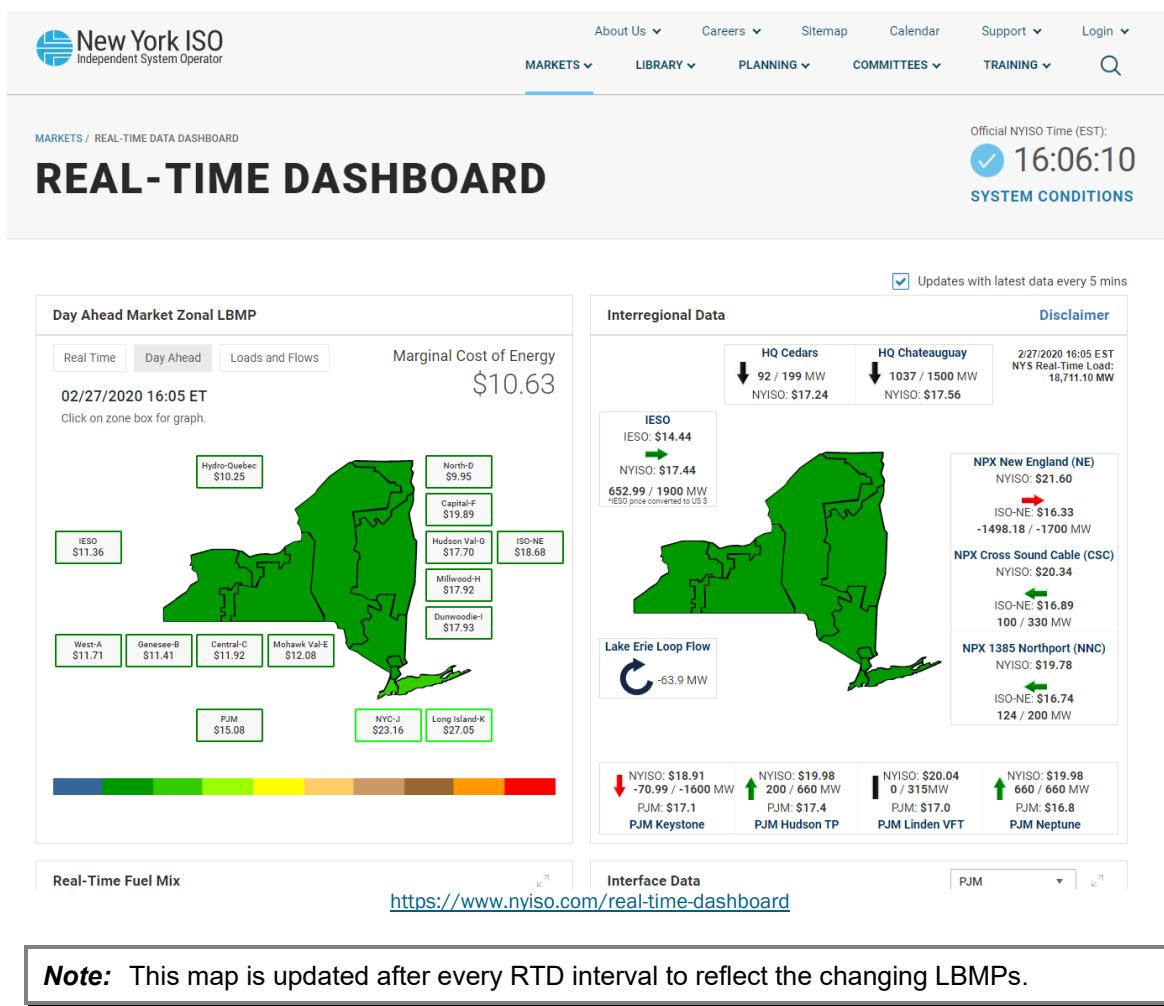
### ***Subzone Definitions***

This is a list of load buses, generators, and tie lines against subzone, metering authority, and TO information.

## 5.9. Zone Maps

The Zone Map tab displays DAM, hourly advisory and actual real-time load by zone, along with the amount of power that is flowing over internal and external interfaces. By double-clicking a specific zone, a pop-up window displaying loss and congestion components appears. On the OASIS page, by selecting the *Zone Maps* tab, the page illustrated in Figure 22 allows access to the displays listed.

**Figure 22: NYISO OASIS Zone Maps page**



Display of DAM Map is the default display. The User can select the *HAM* tab to show the RTC advisories, the *RT* tab to show the Real Time Market, or the *Load/Flow* tab to show a real time map of the internal load and external flow values.

Selecting the button will launch the map in a separate window, which can then be sized by selecting the lower left corner of the window and dragging it diagonally.

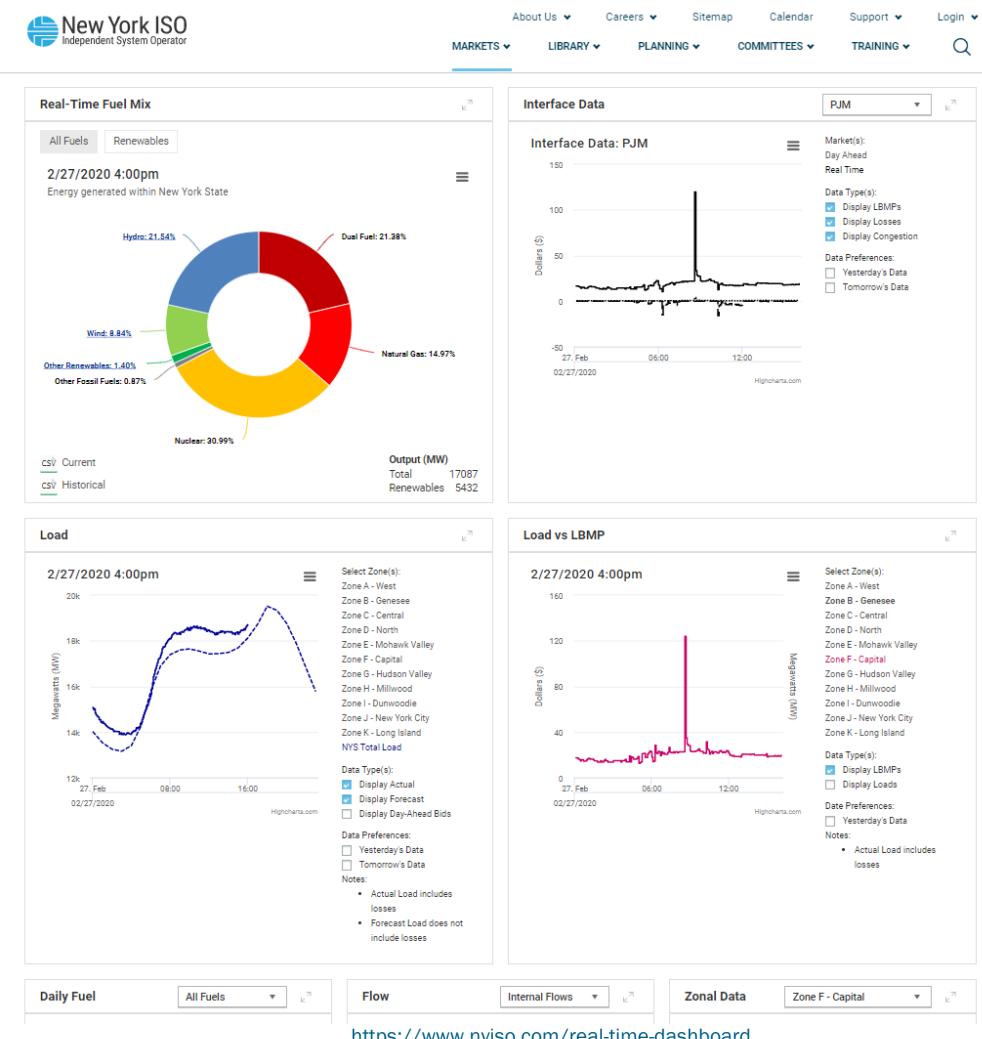
## 5.10. Graphs

The *Graphs* tab allows the User to view graphic displays for the following information:

- Zonal LBMP for desired zones
- Actual Zonal Load compared to the Forecast Zone for desired zones
- Internal and External Interface Flows
- Zonal Load comparison with Zonal LBMP

By selecting the *Graphs* tab on the OASIS page, the page illustrated in Figure 23 allows access to the displays listed.

**Figure 23: NYISO OASIS Graphs Page**



Selecting the button will launch the graph in a separate window, which can then be sized by selecting the lower left corner of the window and dragging it diagonally.

Selecting the button will launch a table view of the data, which was used to create that graph.

## 5.11. Market Access

Market Participants may access the applications listed below through the OASIS Page. By selecting the *Market Access* tab, the page illustrated in Figure 24 is displayed.

**Figure 24: Market Access tab**

The screenshot shows the New York ISO website's Market Access section. The top navigation bar includes links for About Us, Careers, Sitemap, Calendar, Support, and Login. The Markets menu is open, showing options like MARKETS, LIBRARY, PLANNING, and MARKET ACCESS (which is highlighted with a red box). Below the navigation is a sub-menu for MARKET ACCESS, containing links for SANDBOX ACCESS and MYNYISO. The main content area is titled "MARKET ACCESS LOGIN" and features a "SANDBOX ACCESS LOGIN" button. On the left, there's a sidebar with links for Markets (Real-Time Dashboard, Interactive Energy Pricing Map, System Conditions, Energy Market & Operational Data, Installed Capacity Market (ICAP), Transmission Congestion Contracts (TCC), Distributed Energy Resources (DER)), and Market Access Login. The right side contains links for Marketplace Bidding & Scheduling, TCC Automated Market, Decision Support System (DSS), Outage Schedule (TOA), Power Contracts Bulletin Board (IRC), Settlement Data Applications, Credit Management System (CMS), and various user guides and login links.

### 5.11.1. Bidding and Scheduling

Market Participants may access the NYISO MIS and the Upload/Download application through the Bidding and Scheduling section. These applications are used to enter all energy bids, offers, and transactions. “Marketplace Login” links to the Web-enabled MIS. Users using the Upload/Download method to programmatically enter their data should select the second option, “Bidding & Scheduling Upload/Download.”

Reference Section 9 of this document for information on Bidding and Scheduling Error Messages.

### 5.11.2. Settlement Data Exchange (SDX) and Finance API

The Settlement Data Exchange (SDX) and/or Finance API, as applicable, provide Metering Authorities with a way to submit tie, generator, and/or load data. This data may in turn be viewed by the affected MPs.

For more information, see the Settlement Data Applications User's Guide and Finance APIs User's Guide available from the NYISO website at: <https://www.nyiso.com/manuals-tech-bulletins-user-guides>.

#### **5.11.3. ICAP Automated Market**

Provides access to the ICAP Automated Market system. For more information, see the *ICAP Automated Market User's Guide*: available from the NYISO Web site at:

<https://www.nyiso.com/manuals-tech-bulletins-user-guides>.

#### **5.11.4. TCC Automated Market**

The first link provides access to the Transmission Congestion Contracts Automated Market system, while the second connects to a Web page containing TCC-related documents and auction information.

#### **5.11.5. Decision Support System**

The DSS is the NYISO's data warehouse for customer settlements data.

#### **5.11.6. Aggregation System**

Provides access to the Aggregation System, allowing the MP User to interact with and analyze information associated with its Aggregation(s) and DER(s).

#### **5.11.7. Market Information System Instructions**

By clicking the corresponding links on the Market Data Exchange page, Market Participants may access this guide.

##### ***Market Participant User Guide (MPUG)***

See especially Section 8 of this Guide on Upload/Download Batch Procedures.

## 6. Market Participant Administrator Tasks

### 6.1. Introduction

To manage Users, organizations, generators, and load assignments in the MIS, the NYISO has created the position of an Administrator. The Administrator takes care of the behind-the-scenes management of the MIS. In general, Administrators perform the following types of MIS tasks:

- - Assign authorization flags and privileges to Users
  - Define and maintain individual User accounts
  - Assign User rights to access specific generators, Aggregations, and loads
  - Control access through password control

#### 6.1.1. Summary

- Section 6 focuses on the Market Participant Administrator tasks, and the displays that are provided for access to the MIS.
- Sections [6.2.1](#) through [6.2.4](#) describe the tasks and data accessible to the following classifications of Administrators:

NYISO Customer and Guest Organizations

#### 6.1.2. Key Display Features

Administrators and Users should be aware of the various display features.

##### *Selection and Entry Features*

##### **Pull-Down Menus**

The arrow next to Generator Name data field denotes a pull-down menu. When selecting the arrow, the User is provided a pull-down menu of all authorized generator names that the User has permission to access. The User selects the desired name from the pull-down menu, and the data field is automatically populated with the selected entry.

##### **Numeric or Alphanumeric Data Entry**

Some data fields require entry in a predefined format, as illustrated by the Bid Date field. Here the User is prompted to enter data in a specific format (mm/dd/yyyy hh:mm). If the data is entered in a format other than what is specified for that field, an error may result and there is a possibility that the error may not be detected until a validation test of the data is performed.

Radio buttons—when grouped together—operate as follows:

- One, and only one, button may be selected at a time
- When a second button is selected, the radio button moves from the previous selection to the new selection
- There is always one radio button shown as selected at any given point in time.

### Validation Process

- Data has been entered in the correct format
- Bid data is entered

**Note:** Although transaction bids can be entered at any time before the day-ahead and real-time markets close, generator and load bids can only be submitted up to 15 days in advance of the close of the DAM or the specified HAM.

- The bid date has been entered in the correct format
- Generators bidding as “Flexible” must place an availability bid for Reserve in the DAM

### SUBMIT Action

When a SUBMIT action is initiated, the data is submitted to the MIS for validation. The MIS checks the data according to its prescribed rules and returns an error; VALIDATION FAILED status; or VALIDATION PASSED status.

- An error indicates that the data supplied to the MIS was unacceptable. Any data entered as part of the entry session is discarded, and must be re-entered. Error messages appear on a new window. The User should use the **Back** button on the browser and fix the information that was not correct.
- A VALIDATION FAILED status indicates that the data supplied was accepted by the MIS but that some data modification is required to make validation pass. The data entered during the entry session is retained.
- A VALIDATION PASSED status indicates that the data supplied has been successfully submitted. No further changes are required.

**Note:** This rules screen for initial data-entry in the MIS is not equivalent to the subsequent acceptance or rejection of bids in the Day-Ahead or Real-Time Markets (see Section 7).Display Layout

The primary access to the MIS is through a Web-based browser. The MIS display area is divided into two parts, or frames.

The frames and their use are described below.

- The *Menu Frame* sits at the top of the display area. It serves as the main point of entry to those processes that the User is authorized to perform. It stays at the top of the display area throughout the MIS session. Only those processes authorized to the User show up in the menu frame.

If you login as a Market Participant Administrator, you will see the Administrator menu frame (see Figure 26).

If you login as a Market Participant User (see section 7), you will see the User menu frame.

- The *Display/Results Frame* sits just below the menu frame in the display area. When the user selects a display from the menu frame, the chosen display appears in the display/results frame. The display/results frame serves as the main point of user interaction with displays. The user may enter data and launch processes from the display/results frame. DISPLAY and SUBMIT action buttons are provided to launch processes. When this is done, the results part of the display/results frame becomes populated with results of the action.

## Memo Area

Several of the administrative displays include a Memo area. This area allows the Market Participant Administrator to record notes and comments relating to other entries on the display. Entry in the Memo area is free-format without restrictions on line length or number of lines. Local printout of the display from the Web browser, however, will only show the visible portion of the Memo area (with the scroll bars fully up and left). The Enter key may be used to terminate lines to keep all information visible. The Administrator should maintain the Memo areas to keep them current and delete superseded notes.

### ***Standard Web Browser Navigation Tools***

Scrolling features normally associated with a Web browser allow the user to scroll from the top of the display area (where the menu frame is) to the bottom of the display area (where the display/results frame is). Moving forward or backward through the sequence of displays last called can be performed by using the “Forward” and “Backward” keys in the Web browser program.

#### **6.1.3. Market Participant Administrator Login**

The Market Participant Administrator logs in to the MIS through the Administrator Login page.



#### **To Log in to the MIS as a Market Participant Administrator**

1. Point your browser to the MIS Home Page at the following URL:

<https://www.nyiso.com/>

2. From this page, choose **OASIS**.

The Market Data Exchange page is displayed.

**Note:** Alternatively, you may point to **Market Data** followed directly by **Market Access Login**. In this scenario, proceed directly to step 4.

3. Choose **Market Access**.

4. Under **Bidding & Scheduling**, choose **Marketplace Login (User & Admin)**.

With the proper Digital Certificate, the Login display is presented, as illustrated in Figure 25.

**Figure 25: Marketplace Login page**

The screenshot shows the 'Welcome to the Scheduling and Bidding System' page. At the top, there is a logo for 'New York ISO Independent System Operator'. To the right of the logo, the text 'Welcome to the Scheduling and Bidding System' is displayed. On the far right, there is a 'Logout' link and a close button (X). Below the header, there is a navigation bar with links for 'COMPANY', 'MARKET DATA', 'DOCUMENTS', and 'COMMITTEES'. A small note at the bottom right indicates 'Page Ref. G 8'. The main content area is titled 'User Login'. It contains fields for 'User Name' and 'Password', both with placeholder text (''). Below these fields is a 'SUBMIT' button. A note below the fields states: 'Each Market Participant is responsible for entering bid information into the Market Information System accurately, completely, and in a timely fashion. Each Market Participant is responsible for the results, intended or otherwise, of its individual bidding strategies. The NYISO's liability for damages to any Market Participant or other party that may result from its administration of the wholesale energy markets in New York is strictly limited under Section 12.3 of the NYISO Market Administration and Control Area Services Tariff to direct damages resulting from gross negligence or intentional misconduct.' A disclaimer follows: 'Autocomplete and page caching functions are restricted in all websites in Market Information System. The NYISO is committed to provide a secure marketplace to all Market Participants.' At the bottom of the page, a copyright notice reads: '©1999-2021 New York Independent System Operator. All rights reserved.'

5. Enter the **User Name** and **Password** then activate the **Submit** button.

**Note:** If the User Name and Password combination are not authorized, an error message will occur.

When Login is completed, the Market Participant Administrator is presented with the Administrator menu frame illustrated in Figure 26.

**Figure 26: Market Participant Administrator displays**

The screenshot shows the 'Welcome to the Scheduling and Bidding System' page. At the top, there is a logo for 'New York ISO Independent System Operator'. To the right of the logo, the text 'Welcome to the Scheduling and Bidding System' is displayed. On the far right, there is a 'Logout' link and a close button (X). Below the header, there is a navigation bar with links for 'COMPANY', 'MARKET DATA', 'DOCUMENTS', and 'COMMITTEES'. A horizontal line of links follows: 'Administrator Details', 'Change Password', 'Generator Commitment Parameters', 'Generator Details', 'Generator OOM', 'LSE Details', 'Load Bus Details', 'Log Out', 'New Generator Bid', 'Organization Details', 'Review Generator Bids', 'Review Generator Forecasted Schedules', 'Trading Hub Summary', and 'User Details'. Below the navigation bar, the text 'Bidding and Scheduling' is displayed. A note below it says: 'Please click any links above to continue.' At the bottom of the page, a copyright notice reads: '©1999-2021 New York Independent System Operator. All rights reserved.'

Figure 26 shows a few of the categories of displays that the Market Participant Administrator may access dependent on their permission. Specific access depends on the organizations, generators, Aggregations, and LSEs that the Market Participant Administrator is allowed to administer.

The menu frame remains at the top of the screen throughout the time the Administrator is logged in. The Market Participant Administrator chooses the desired displays from the menu frame.

**Special Note:** Activating the **Log Out** hyperlink in the User menu frame allows a User to exit the MIS application. This clears the session and connection on the NYISO MIS server. Although

log out is not mandatory, it is good practice for system security. After logging out, the User's browser will automatically refresh to display the NYISO home page.

#### **6.1.4. Secure Communication with the MIS**

The primary medium of communication between the Market Participants and the MIS is the public Internet. Those wishing to obtain proprietary data improperly or who wish to "hack" into the system for the sole purpose of doing damage, most likely already have sophisticated tools and techniques with which to accomplish these objectives. The MIS employs several techniques designed to prevent such activity. Once logged into the MIS, User IDs and passwords are employed to control and to limit access to only that data appropriate to the User's organization and administrative procedures.

In order to prevent User IDs and passwords from being seen by eavesdroppers, all communications between Users and the server are encrypted using SSL (Secure Sockets Layer) v3. The User's browser should be set to accept SSL v3. Furthermore, each user must be authenticated using a Digital Certificate. This certificate, which is issued by a trusted third party North American Energy Standards Board (NAESB) Authorized Certificate Authority (ACA), ensures that the server cannot be spoofed into accepting someone else posing as a certified user.

The most popular browsers support strong encryption. It is transparent to the user, requiring no special actions. However, a unique certificate is required for each MIS user account wishing to access a NYISO application. Users representing multiple organizations are required to purchase a unique certificate for each of their user IDs.

Information on obtaining and managing a Digital Certificate can be found in section 4.4, Digital Certificates, of this Guide.

#### **6.1.5. MIS Classification Data**

The MIS Classification Data provides a flexible means for different organizations to manage their access to the MIS. There are six primary entities in the MIS as shown in the following list.

##### ***An Administrator***

- administers zero, one, or many generators
- administers zero, one, or many LSEs
- administers zero, one, or many organizations

##### ***A Generator***

- belongs to one or more organizations
- belongs with one or more Users

- is administered by one or more Administrators

***An LSE***

- belongs to one or more organizations
- is administered by one or more Administrators
- may have one or more loads belonging to it

***A User account***

- may have zero, one, or many generators belonging to it
- may have zero, one, or many loads belonging to it
- belongs to one and only one organization

***A Load***

- belongs to one and only one LSE
- may belong to zero, one, or many Users

***An Organization***

- has zero, one, or many generators and/or Aggregations
- has zero, one, or many LSEs
- has one or more Administrators assigned
- has zero, one, or many Users assigned

#### **6.1.6. Getting Started**

One of the first decisions a NYISO Customer must make when signing on to the NYISO is to determine the best arrangement for managing the administration of the various Market Participant Users within the organization. The MIS design is very versatile; it provides the NYISO Customer's Organization with several options for establishing who can set up accounts and who can submit bids.

- The administration of organizations, generators, and LSEs may be done within the NYISO Customer or Guest Organization or be delegated to a third-party organization
- The administration of organizations, generators, and LSEs may be segmented with a different Administrator assigned to one or more of each category
- Bids may be submitted by Users within the company or Users from third-party organizations such as power marketers
- Users can be authorized to submit bids for different markets for predefined combinations of generators, loads, and/or transactions, based on the generators and loads authorized to the User

***Market Participant Administrator Classifications***

When signing up with the NYISO, the NYISO Customer must supply the name(s) of the Administrator(s) that will be managing access to the MIS. The NYISO, per the NYISO Customer's instructions, will assign the

designated Market Participant Administrator(s) ***one or more*** of the following Market Participant Administrator classifications:

### ***1. NYISO Customer***

This classification enables the Market Participant Administrator to access the following displays from the menu frame (see Figure 26):

- Administrator Details
- Change Password
- Organization Details
- Subzone Details
- User Details
- Zone Details

### ***2. Guest***

This classification enables the Market Participant Administrator to access the following displays from the menu frame.

- Administrator Details
- Change Password
- Organization Details
- Subzone Details
- User Details
- Zone Details

The next few sections look at each Administrator classification and the display and task capabilities provided for each.

## **6.2. Duties of a Market Participant Administrator**

This section describes the MIS access that is provided to Market Participant Administrators:

### **6.2.1. Administrator Details**

Market Participant Administrators with the NYISO Customer or Guest classification can perform the following tasks through the Administrator Details display.

- View/change Administrator contact information
- View assigned Administrator classifications
- 
- View current assignments of organizations, generators, and LSEs to Administrators

## **To Access your Administrator User Information**

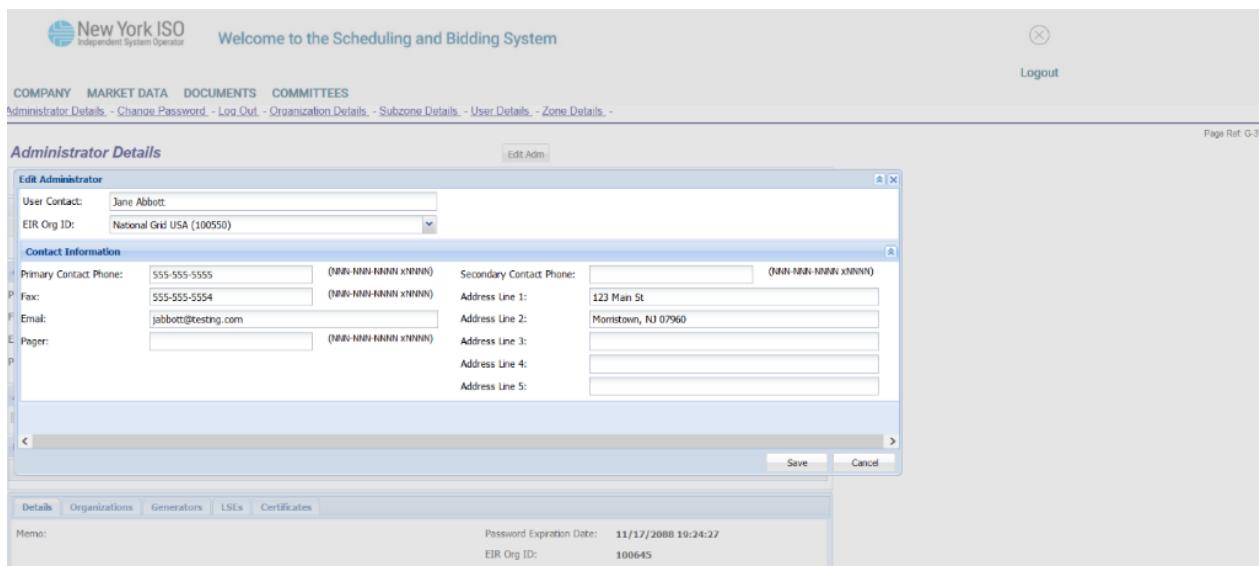
1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. From the Administrator menu frame, choose **Administrator Details**.
3. From the **User Contact** drop-down field, choose your Administrator name.
4. Activate the **Search** button.

## **To View/Change Administrator Contact Information**

 **Special Note:** The Market Participant Administrator is permitted to change any of the contact information.

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. From the Administrator menu frame, choose **Administrator Details**.
3. Activate the **Edit Adm** button at the top or bottom of the page.
4. A pop-up window labeled **Edit Administrator** is displayed, as illustrated in Figure 27 following.

**Figure 27: Edit Administrator Contact Information display**



The screenshot shows the 'Edit Administrator' dialog box over a web-based application interface. The application header includes the New York ISO logo, a 'Logout' link, and a 'Page Ref. G-31' link. The main menu bar has links for COMPANY, MARKET DATA, DOCUMENTS, and COMMITTEES. Below the menu is a navigation bar with links for Administrator Details, Change Password, Log Out, Organization Details, Subzone Details, User Details, and Zone Details. The 'Edit Administrator' dialog box contains fields for User Contact (Jane Abbott), EIR Org ID (National Grid USA (100550)), and Contact Information. The Contact Information section includes fields for Primary Contact Phone (555-555-5555), Secondary Contact Phone, Fax (555-555-5554), Email (jabott@testing.com), Pager, Address Line 1 (123 Main St), Address Line 2 (Montgomery, NJ 07960), and Address Lines 3-5. At the bottom of the dialog are 'Save' and 'Cancel' buttons. Below the dialog, the main application interface shows tabs for Details, Organizations, Generators, LSEs, and Certificates, along with a memo field and password expiration information (11/17/2088 10:24:27) and EIR Org ID (100645).

5. View/change the **Contact Information**, then activate the **Save** button. The MIS will confirm your changes.

## **To View Assigned Administrator Classification(s)**

6. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
7. From the Administrator menu frame, choose **Administrator Details**.

8. Scroll to the portion of the Administrator Details display illustrated in Figure 28, following.
- Figure 28: Administrator Classifications display**

| Allowed To Administer        |                                |                                   |                                    |  |  |
|------------------------------|--------------------------------|-----------------------------------|------------------------------------|--|--|
| <input type="checkbox"/> ISO | <input type="checkbox"/> Guest | <input type="checkbox"/> Customer | <input type="checkbox"/> Generator | <input type="checkbox"/> Load Serving Entity | <input type="checkbox"/> Meter Authority |
| Privileges                   |                                |                                   |                                    |  |  |
| Privileges                   |                                |                                   |                                    |  |  |

☛ **To View Current Assignments of Organizations, Generators, and LSEs to Administrators**

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. From the Administrator menu frame, choose **Administrator Details**.
3. Scroll to the portion of the Administrator Detail display illustrated in Figure 29, following.
4. View the desired information:
  - To view current assignment of Organizations, activate the **Organizations** tab.
  - To view current assignment of Generators, activate the **Generators** tab.
  - To view current assignment of LSEs, activate the **LSEs** tab.

**Figure 29: Organizations Currently Assigned Portion of Administrator Detail display**

| Details           | Organizations       | Generators | LSEs |
|-------------------|---------------------|------------|------|
| Organization Name | Acme NY Energy, Inc |            |      |

#### 6.2.2. Change Password

The Change Password functionality is performed through one of two NYISO applications.

All Market Participants can change their own passwords, when prompted by an expiration notice or when a password has been forgotten, through the NYISO Self-Service Account Management (SSAM) application. Market Participants may also change a known and unexpired password at any time directly through the NYISO MIS application.

Market Participant Administrators with the NYISO Customer or Guest classification can also set the initial MIS user password or change the password of those Organizational Users they administer. This functionality is accessed directly through the NYISO MIS application.

**Note:** Beginning on May 15, 2017, MIS passwords will expire 13 months from when they were last set. An expired password can be reset by the user or the user's administrator.

### ***Prerequisites to changing your MIS user password in the SSAM application***

Before changing your password, the following prerequisites must be completed:

- The user is in possession of a valid certificate that is currently linked to their MIS account.
- The user knows the current password.



#### ***The certificate is installed in a web browser. To Change Your Password Using the SSAM Application***

1. Navigate to the NYISO Self-Service Account Management (SSAM) application located on the NYISO Market Access Login page at:  
[http://www.nyiso.com/public/markets\\_operations/market\\_data/market\\_access\\_login/index.jsp](http://www.nyiso.com/public/markets_operations/market_data/market_access_login/index.jsp).
2. Select the desired certificate from a list if prompted.
3. Enter your current password.
4. Enter a new password, adhering to complexity and reuse requirements detailed on the screen.
5. The password is set to the new password value

### ***Prerequisites to resetting your forgotten password in the SSAM application***

Before resetting your forgotten password, the following prerequisites must be completed:

- The user is in possession of a valid certificate that is currently linked to their MIS account.
- The certificate is installed in a web browser.



#### ***To Reset Your Forgotten Password Using the SSAM Application***

1. Navigate to the NYISO Self-Service Account Management (SSAM) application located on the NYISO Market Access Login page at:  
[http://www.nyiso.com/public/markets\\_operations/market\\_data/market\\_access\\_login/index.jsp](http://www.nyiso.com/public/markets_operations/market_data/market_access_login/index.jsp).
2. Select the desired certificate from a list if prompted.
3. Select the reset password option.
4. Select voice or text method to receive PIN.
5. Once PIN is received, enter PIN into the SSAM when prompted and enter a new password, adhering to complexity and reuse requirements detailed on the screen.
6. The password is set to the new password value

**Figure 30: NYISO SSAM Password Change display**

The screenshot shows a web browser window for 'NYISO Account Services' at the URL <https://services-pg2.nyiso.com/acc>. The title bar says 'NYISO Account Services'. The main content area has a heading 'Change Password' and a sub-section 'Change Existing Password'. It includes a note about password changes taking up to 10 minutes to register. A list of password criteria is provided, such as being between 8 and 18 characters long and containing specific characters. There are three input fields: 'User Name' (MPUSER), 'Current Password', and 'New Password'. Below these is a 'Confirm New Password' field. On the right, a green button labeled 'Change Password' is visible. To the left of the input fields, there are two yellow callout boxes: one for 'Create or Reset Password' and another for 'Unlink Certificate'.

#### ***Setting an initial or changing an organizational user's password in the MIS application***

Before setting the initial or changing an organizational user's password one of the following circumstances must be exist:

- The password is being set for a new MIS user account.
- Or, an existing user does not have a valid linked certificate AND has forgotten their password.

#### ***Prerequisites to changing an organizational user's MIS user password in the MIS application***

Before changing an organizational user's password, the following prerequisites must be completed:

- The user is in possession of a valid certificate that is currently linked to their MIS account.
- The user knows their current password.
- Their current password has not yet expired.
- The certificate is installed in a web browser.

## **To Set an Initial or Change an Organizational User's Password Using the MIS Application**

1. Log in to your MIS Administrator account.
2. From the menu frame, choose **Change Password**.
3. From the **Organization Name** drop-down list, choose the user's organization name.
4. From the **Username** drop-down list, choose the name of the user.
5. Enter your current password
6. Enter a new password and then enter it again for confirmation.
7. After the password has been entered, activate the **Save** button. The MIS will confirm acceptance of the password.

### ***Prerequisites to changing your MIS user password in the MIS application***

Before changing your password, the following prerequisites must be completed:

- The user is in possession of a valid certificate that is currently linked to their MIS account.
- The user knows the current password.
- The current password has not yet expired.
- The certificate is installed in a web browser.

## **To Change Your Password Using the MIS Application**

1. Log in to your MIS Administrator account.
2. From the Administrator menu, choose **Change Password**.
3. From the **Organization Name** drop-down list, choose MP Administrative. Your administrator username is automatically selected in the Username drop-down field.
4. Enter your current password
5. Enter a new password and then enter it again for confirmation.
6. After the password has been entered, activate the **Save** button. The MIS will confirm acceptance of the password.

**Figure 31: Password Change display**

New York ISO Independent System Operator Welcome to the Scheduling and Bidding System

Logout

COMPANY MARKET DATA DOCUMENTS COMMITTEES

Administrator Details - Change Password - Log Out - Organization Details - Subzone Details - User Details - Zone Details -

Page Ref: C-34

**Password Change**

Organization Name: MP ADMINISTRATIVE Username: ABBOTTS - Sharon Abbott

User Contact: Sharon Abbott

Username: ABBOTTS

Organization Name: MP ADMINISTRATIVE

Organization Type: ADMINISTRATIVE

Password for ABBOTTS:

New Password:

Confirm New Password:

Save Reset

Please note, user profile changes may not register with NYISO systems immediately.  
Please allow up to 10 minutes for changes to become effective.

Password must meet the following criteria:  
Must be between 12 and 30 characters  
Must not be a dictionary word in its entirety  
Must not have over 4 repetitive or sequential characters

### 6.2.3. Generator Details

Market Participant Administrators with the Generator classification can perform the following tasks from the Generator Details display:

- View generator and Aggregation contact information
- View generator or Aggregation limits, authorization flags, and physical attributes
- View billing organizations assigned to the generator or Aggregation
- View organizations currently authorized for a generator or Aggregation
- View Administrators currently assigned to a generator or Aggregation
- View Metering Authorities assigned to the generator or Aggregation

**Note:** Only NYISO Administrator can change generator and Aggregation limits, authorization flags, or physical attributes, as outlined under Section [4.5](#), beginning on page [43](#). Likewise, only the NYISO Administrator can change generator and Aggregation contact information and the organizations/MP Administrators assigned to generators and Aggregations, as outlined under [4.2.1](#), beginning on page [36](#).

#### ***Generator and Aggregation Authorization Flags***

The Market Information System (MIS) maintains a set of authorization flags for each generator and Aggregation that reflects the unit's capability to bid for and, if scheduled, provide various services. The authorization flags are maintained by the NYISO and are not part of a generator or Aggregation's bid parameters.

Authorization flags indicate, among other things, which reserve products a generator or Aggregation is capable of providing. The authorization flag for spinning reserves must be set for a flexible generator or Aggregation in order for the generator or Aggregation to bid spinning reserves. The authorization flag for non-synchronous (10- or 30-minute) reserves must be set for a flexible generator or Aggregation in order for the generator or Aggregation to bid non-synchronous reserves. Generators or Aggregations that bid into the non-synchronous reserve market will not have their units scheduled for energy if their bids are accepted in the non-synchronous reserve market.

 **Special Note:** In addition to authorization flags, bid mode plays a role in determining whether a generator or Aggregation is evaluated for reserves. For further details, please see the section titled "Generator and Aggregation Bid Modes," beginning on page [118](#).

Generators and Aggregations must ensure that the authorization flags in the Market Information System (MIS) accurately reflect the unit's capabilities. Authorization flags take precedence over bid parameters that may otherwise preclude providing a service. For example, when a start-up time might otherwise preclude a unit from providing non-synchronous reserve, but the authorization flag indicates that the unit is capable of providing non-synchronous reserve, the authorization flag will prevail, and the unit may be scheduled to provide non-synchronous reserve. Inability to perform may subject the unit to a derate.

Market Participants are not permitted to change a generator or Aggregation's authorization flags. Rather, Market Participants must contact NYISO Stakeholder Services to make these changes. (See Section [4.5](#), "Updating Generator and Aggregation Limits, Physical Parameters, and Authorization Flags," beginning on page [43](#).) Additionally, the NYISO Market Mitigation and Analysis Unit (MMA) must approve any changes to these flags.



### **To View a Generator or Aggregation's Information**

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. From the Administrator menu frame, choose **Generator Details**.
3. Do only one of the following:
  - Enter the **PTID** of the generator or Aggregation you want to view, or
  - Enter the **EDC Area** of the generator or Aggregation(s) you want to view, or
  - Choose the **Generator Name** from the corresponding drop-down field, which presents you with a list of generators or Aggregations that you are authorized to view.
4. Activate the **Search** button. The MIS responds by displaying the details for the selected generator or Aggregation (see Figure 32, following).

**Figure 32: Generator Details display**

The screenshot shows the 'Generator Details' page of the New York ISO Scheduling and Bidding System. At the top, there is a header with the New York ISO logo and the text 'Welcome to the Scheduling and Bidding System'. Below the header, there are tabs for COMPANY, MARKET DATA, DOCUMENTS, and COMMITTEES. A navigation bar below the tabs includes links for Administrator Details, Change Password, Confirm Transaction Bids, Generator Commitment Parameters, Generator Details, Generator OOM, Joint Energy Scheduling System, LSE Details, Load Bus Detail, Review Transaction Contracts, Trading Hub Summary, and User Details.

The main content area is titled 'Generator Details' and contains several sections:

- Generator Details:** Shows basic information like Generator PTID (TEST\_TEST\_TEST1), EDC (EDC), Generator Name (TEST\_TEST\_TEST1), Gen PTID (124512), Pricing PTID (124512), Generator Type (NON-UTILITY GENERATOR), and Active Flag (Y).
- Contact Information:** Lists primary contact (itqa, 516-555-5555), secondary contact (None), fax (None), email (it\_qa@nyiso.com), pager (None), and outage scheduling email (it\_qa@nyiso.com).
- Generator Limits:** Displays physical generation limits for various seasons and years. For example, Physical Min Generation is 0.0, Summer Operating Capacity is 50.0, and Winter Contract Capacity is 50.0, all starting on 01/12/2023 at 00:00:00.
- Authorization Flags:** Shows DAM Flags (Fixed Energy, Dispatch Energy, Regulation Control) and HAM Flags (10 Minute Spinning, 30 Minute Spinning, 10 Minute Non-Synch, 30 Minute Non-Synch). It also includes Other Flags (Bid ICAP).
- Generator Bidding Flags:** A grid of flags for different bidding types across various timeframes.
- Generator Physical Attributes:** Lists emergency response rates (1.0), regulation capacity response rates (1.0), and 6-second regulation response rates (1.00).
- Generator Response Rates Rates:** Shows response rates for different emergency levels (1.0, 1.0, 0.0, 0.0, 0.0, 1.0) and their corresponding effective dates (01/12/2023 16:12:00).
- Navigation and Details:** At the bottom, there are tabs for Details, Billing Orgs, LSEs, Organizations, Administrators, Buses, Metering Authorities, and Subzones. The 'Details' tab is selected. There are also fields for Station Name (TEST), CSR Name, Group, and Meter Qualified status.

### To View Generator or Aggregation Contact Information

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose a Generator or Aggregation to view as outlined in the corresponding procedure on page [79](#).



## To View Generator or Aggregation Limits, Physical Parameters, and Authorization Flags

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose a Generator or Aggregation to view as outlined in the corresponding procedure on page [79](#).
3. Scroll to the lower portion of the display, which reflects information on **Generator Limits**, **Authorization Flags**, and **Generator Physical Attributes** (see Figure 33, following).

**Figure 33: Generator Limits, Authorization Flags, and Generator Physical Attributes**

| Generator Limits                              |  |   |  |  |  |   |                                      |  |   |   |   |  |
|---|--|---|--|--|--|---|--------------------------------------|--|---|---|---|--|
| Physical Min Generation                       | Summer Operating Capacity                    | Winter Operating Capacity                   | Summer Contract Capacity                     | Winter Contract Capacity                     | Start Date   | End Date                                  |                                      |  |   |   |   |  |
| Authorization Flags                           |  |   |  |  |  |   |                                      |  |   |   |   |  |
| DAM Flag                                      |  |   |  | HAM Flag                                     |  |   |                                      | Other Flag                                 |   |   |   |  |
| <input type="checkbox"/> Fixed Energy         | <input type="checkbox"/> 10 Minute Spinning  | <input type="checkbox"/> Fixed Energy       | <input type="checkbox"/> 10 Minute Spinning  | <input type="checkbox"/> Bid ICAP            |  |   |                                      |  |   |   |   |  |
| <input type="checkbox"/> Dispatch Energy      | <input type="checkbox"/> 30 Minute Spinning  | <input type="checkbox"/> Dispatch Energy    | <input type="checkbox"/> 30 Minute Spinning  |  |  |   |                                      |  |   |   |   |  |
| <input type="checkbox"/> Regulation Control   | <input type="checkbox"/> 10 Minute Non-Synch | <input type="checkbox"/> Regulation Control | <input type="checkbox"/> 10 Minute Non-Synch |  |  |   |                                      |  |   |   |   |  |
|   |  |   |  | <input type="checkbox"/> 30 Minute Non-Synch | <input type="checkbox"/> 30 Minute Non-Synch   |   |                                      |  |   |   |   |  |
| Generator Bidding Flags                       |  |   |  |  |  |   |                                      |  |   |   |   |  |
| Bid DAM<br>Fixed Energy<br>Qualified          | DAM<br>Dispatchable<br>Energy<br>Qualified   | DAM 10<br>Minute<br>Spinning<br>Qualified   | DAM 10<br>Minute Non-<br>Synch<br>Qualified  | DAM 30<br>Minute<br>Spinning<br>Qualified    | DAM 30<br>Minute Non-<br>Synch<br>Qualified  | DAM<br>Regulation<br>Control<br>Qualified | Bid HAM<br>Fixed Energy<br>Qualified | HAM<br>Dispatchable<br>Energy<br>Qualified | HAM 10<br>Minute<br>Spinning<br>Qualified | HAM 10<br>Minute Non-<br>Synch<br>Qualified | HAM 30<br>Minute<br>Spinning<br>Qualified |  |
| Generator Physical Attributes                 |  |   |  |  |  |   |                                      |  |   |   |   |  |
| Emergency Response Rate:                      | Normal Response Rate 1 MW/Min:               |   |  |  | Normal Response Rate 1 MW:   |   |                                      |  |   |   |   |  |
| Regulation Capacity Response Rate<br>MW/Mn:   | Normal Response Rate 2 MW/Min:               |   |  |  | Normal Response Rate 2 MW:   |   |                                      |  |   |   |   |  |
| 6-Second Regulation Response Rate<br>MW/6Sec: | Normal Response Rate 3 MW/Min:               |   |  |  |  |   |                                      |  |   |   |   |  |
| Generator Response Rates Rates                |  |   |  |  |  |   |                                      |  |   |   |   |  |
| Emergency Resp Rate                           | Normal Resp Rate 1                           | Normal Resp Rate 2                          | Normal Resp Rate 3                           | Normal Resp Rate MW                          | Max Reg Resp Rate  | Begin Effective Date                      | End Effective Date                   |  |   |   |   |  |
| Details                                       |  |   |  |  |  |   |                                      |  |   |   |   |  |
| Station Name:                                 | CSR Name:                                    |   |  |  | <input type="checkbox"/> Meter Qualified<br><input type="checkbox"/> NYC MPM Flag<br><input type="checkbox"/> NYC 10 Min Spin Check Flag<br><input type="checkbox"/> AVR Qualified |   |                                      |  |   |   |   |  |
| Voltage Class:                                | Group:                                       |   |  |  |  |   |                                      |  |   |   |   |  |
| Gen Name:                                     | Station Service Group:                       |   |  |  |  |   |                                      |  |   |   |   |  |
| EDC Area:                                     | NERC ID:                                     |   |  |  |  |   |                                      |  |   |   |   |  |
| Subzone:                                      |  |   |  |  |  |   |                                      |  |   |   |   |  |
| Zone:   |  |   |  |  |  |   |                                      |  |   |   |   |  |



## To View Administrators Currently Assigned to a Generator or Aggregation

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose a Generator or Aggregation to view as outlined in the corresponding procedure on page [79](#).

3. Scroll to the bottom of the display, then activate the **Administrators** tab. The Administrators display is presented, as illustrated in Figure 34 following.

**Figure 34: Administrators display**

The screenshot shows a software interface with a top navigation bar containing tabs: Details, Billing Orgs, LSEs, Organizations, Administrators, Buses, and Metering Authorities. The Administrators tab is currently selected and highlighted in blue. Below the navigation bar is a table with one row. The first column is labeled "Administrator Name" and contains the value "JSMITH97". There are scroll bars on the right side of the table area.



#### **To View Billing Organizations Assigned to a Generator or Aggregation**

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose a Generator or Aggregation to view as outlined in the corresponding procedure on page [79](#).
3. Scroll to the bottom of the display, then activate the **Billing Orgs** tab. The current and past list of Billing Orgs is displayed.

#### **Change Billing Organization**

The Market Participant Administrator is not permitted to change a facility's billing organization at any time. If a billing organization change is required, written notice must be provided to NYISO via a letter signed by an authorized representative of the company. Both the current and the new billing organizations should submit letters indicating the date on which the billing organization change will occur.

Notification should be forwarded to NYISO as follows:

**New York Independent System Operator**

c/o Member Relations

10 Krey Boulevard

Rensselaer, NY 12144

[customer\\_registration@nyiso.com](mailto:customer_registration@nyiso.com)

Once the written requests are received and approved, the NYISO Administrator will insert the new billing organization and enter the effective date. All billing organization changes take effect HB00. All invoices/true-ups processed for the effective date going forward, will be issued to the new billing organization. All invoices/true-ups processed for dates prior to the effective date will be issued to the previous billing organization.

If the billing entity for an Aggregation must change, the NYISO requires the applicable Aggregator to effectuate this change in the Aggregation System. A change from one Aggregator to a new Aggregator serving as the billing organization means that the original Aggregator must separate the Aggregation from the market, enabling the new Aggregator to enroll the Aggregation and assume billing organization responsibility.



#### **To View Organizations Assigned to a Generator or Aggregation**

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Select a Generator or Aggregation to view as outlined in the corresponding procedure on page [79](#).
3. Scroll to the bottom of the display, then activate the **Organizations** tab. The list of Organizations authorized to administer the generator or Aggregation is displayed.

#### **6.2.4. LSE Details**

Market Participant Administrators with the LSE classification can perform the following tasks from the LSE Details display:

- View LSE contact information
- View billing organizations for an LSE
- View load buses for an LSE

**Note:** Only the NYISO Administrator can change LSE contact information and the organizations and MP Administrators assigned to LSEs, as outlined under [4.2.1](#), beginning on page [36](#).



#### **To View an LSE's Information**

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. From the Administrator menu frame, choose **LSE Details**.
3. Do only one of the following:
  - Enter the **PTID** of the LSE you want to view, or
  - Choose the **LSE Name** from the corresponding drop-down field, which presents you with a list of LSEs that you are authorized to view.
4. Activate the **Search** button. The MIS responds by displaying the details for the selected LSE (see Figure 35, following).

**Figure 35: LSE Details display**

The screenshot shows the 'LSE Details' page of the New York ISO system. At the top, there's a navigation bar with links like 'Administrator Details', 'Change Password', 'Generator Commitment Parameters', 'Generator Details', 'Generator OOM', 'Joint Energy Scheduling System', 'LSE Details', 'Load Bus Details', 'Log Out', 'Organization Details', 'Physical Load Bids', 'Review Generator Bids', 'Submit Generator Forecasted Schedule', 'Review Transaction Bids', 'Review Transaction Contracts', 'Subzone Details', 'Tx Details', 'User Details', 'Virtual Load Bids', 'Virtual Supply Bids', and 'Zone Details'. Below the navigation is a search bar with placeholder text 'LSE ID/Name' and a 'Search' button. A table displays LSE details with columns: LSE ID/Name, LSE ID, LSE PIB, and Active Flag. The row for '1S1INSTIV1' has values '1079096', '1S', and 'Y'. Below the table is a 'Contact Information' section with fields for Primary Contact (Alexander Smith, phone 555-555-5555), Secondary Contact (empty), and Address (ABC company, 123 main st, Cheyenne, Wyoming 02001). There are also fields for Fax, Email (testing@test.com), and Pager. At the bottom of the page, there are tabs for 'Details', 'Administrators', 'Organizations', 'Billing Org', 'Generators', and 'Buses'. The update time is listed as 01/13/2023 11:48:46.

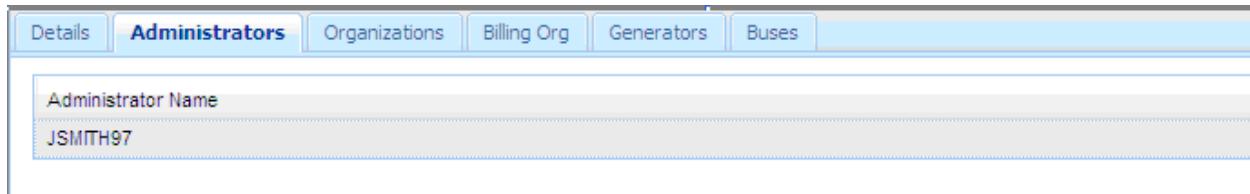
### **To View LSE Contact Information**

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose an LSE to view as outlined in the corresponding procedure on page [83](#).

### **To View Administrators Currently Assigned to an LSE**

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose an LSE to view as outlined in the corresponding procedure on page [83](#).
3. Scroll to the bottom of the display, and then activate the **Administrators** tab. The LSE Administrators display is presented, as illustrated in Figure 36 following.

**Figure 36: LSE Administrators display**



**To View Organizations Currently Authorized to an LSE**

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose an LSE to view as outlined in the corresponding procedure on page [83](#).
3. Scroll to the bottom of the display, then activate the **Organizations** tab. The list of Organizations authorized to administer the LSE is presented.

**To View Billing Organizations Assigned to an LSE**

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose an LSE to view as outlined in the corresponding procedure on page [83](#).
3. Scroll to the bottom of the display, then activate the **Billing Orgs** tab. The current and past list of LSE Billing Orgs is displayed.

**Change Billing Organization**

The MIS Administrator is not permitted to change a Load Serving Entity's billing organization at any time. If a billing organization change is required, written notice must be provided to NYISO Stakeholder Services via a letter signed by an authorized representative of the company. Both the current and the new billing organizations should submit letters indicating the date on which the billing organization change will occur.

Notification should be forwarded to Stakeholder Services as follows:

**New York Independent System Operator**

c/o Stakeholder Services

10 Krey Boulevard

Rensselaer, NY 12144

Once the written requests are received and approved, the NYISO Administrator will insert the new billing organization and enter the effective date. All billing organization changes take effect HB00. All invoices/true-ups processed for the effective date going forward, will be issued to the new billing

organization. All invoices/true-ups processed for dates prior to the effective date will be issued to the old billing organization.

#### 6.2.5. Load Bus Details

Market Participant Administrators with the LSE classification can perform the following tasks from the Load Bus Details display:

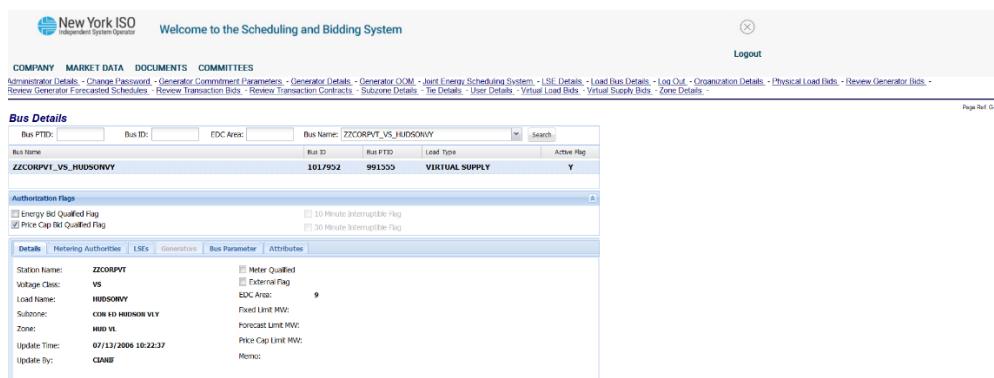
- View Load Bus authorization flags
- View Load Bus Details
- View the Metering Authority responsible for the Load Bus
- View the LSEs responsible for the Load Bus

View any Generators associated with the Load Bus, if applicable

#### To View Load Bus Information

1. Log in to your Administrator account as outlined in the corresponding procedure on page 68.
2. From the Administrator menu frame, choose **Load Bus Details**.
3. Do only one of the following:
  - Enter the **PTID** of the Load Bus you want to view, or
  - Enter the **EDC Area** of the Load Bus, or
  - Choose the **Load Bus Name** from the corresponding drop-down field, which presents you with a list of Load Buses that you are authorized to view.
4. Activate the **Search** button. The MIS responds by displaying the details for the selected Load Bus (see Figure 37, following).

**Figure 37: Load Bus Details display**



The screenshot shows the 'Bus Details' section of the New York ISO Scheduling and Bidding System. At the top, there are input fields for 'Bus PTID', 'Bus ID', and 'EDC Area', with the value 'Z7COPV1\_VS\_HUDSONVY' entered. Below these are fields for 'Bus Name', 'Bus ID', 'Bus PTID', 'Lead Type', and 'Active Reg'. The 'Bus Name' field contains 'Z7COPV1\_VS\_HUDSONVY', 'Bus ID' contains '101/952', 'Bus PTID' contains '991355', 'Lead Type' is 'VIRTUAL SUPPLY', and 'Active Reg' is checked. A 'Search' button is to the right. Below this is a table titled 'Authorization Flags' with four checkboxes: 'Energy Bid Qualified Flag', 'Price Cap Bid Qualified Flag', '10 Minute Interruptible Reg', and '30 Minute Interruptible Reg'. The 'Price Cap Bid Qualified Flag' and '10 Minute Interruptible Reg' checkboxes are checked. At the bottom of the table are tabs for 'Details', 'Metering Authorities', 'USES', 'Generators', 'Bus Parameter', and 'Attributes'. Under the 'Details' tab, there is a table with columns for 'Station Name', 'Voltage Class', 'Load Name', 'Subzone', 'Zone', 'Update Time', and 'Update By'. The 'Station Name' column has 'Z7COPV1' and 'VS' in it. The 'Voltage Class' column has 'HUDSONVY'. The 'Load Name' column has 'HUDSONVY'. The 'Subzone' column has 'C01 ED HU03N VLY'. The 'Zone' column has 'H00 V1'. The 'Update Time' column has '07/13/2006 16:22:37'. The 'Update By' column has 'CIANIF'. To the right of the table are checkboxes for 'Meter Qualified', 'External Flag', 'EDC Area', 'Fixed Limit MW', 'Forecast Limit MW', 'Price Cap Limit MW', and 'Memo'.

## **To View Metering Authorities that are/have been responsible for the Load Bus**

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose a Load Bus to view as outlined in the corresponding procedure on page [83](#).
3. Scroll to the bottom of the display, then activate the **Metering Authority** tab. The current and past list of Metering Authorities is displayed.

## **To View LSEs that are/have been responsible for the Load Bus**

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose a Load Bus to view as outlined in the corresponding procedure on page [83](#).
3. Scroll to the bottom of the display, then activate the **LSEs** tab. The current and past list of LSEs is displayed.

## **To View Generators that are associated with the Load Bus**

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose a Load Bus to view as outlined in the corresponding procedure on page [83](#).
3. Scroll to the bottom of the display, then activate the **Generators** tab. The current and past list of Metering Authorities is displayed.

### **6.2.6. Organization Details**

Market Participant Administrators with the NYISO Customer or Guest classification can perform the following tasks:

- View contact information for organizations
- View bid authorization settings
- View privileges assigned to an organization
- View Administrators currently assigned to an organization
- View generators or Aggregations associated with an organization
- View LSEs associated with an organization

**Note:** Only the NYISO Administrator can change organization contact information and the authorization flags, privileges, and MP Administrator(s) assigned to organizations, as outlined under [4.2.1](#), beginning on page [36](#).

## **To Access Organization Information**

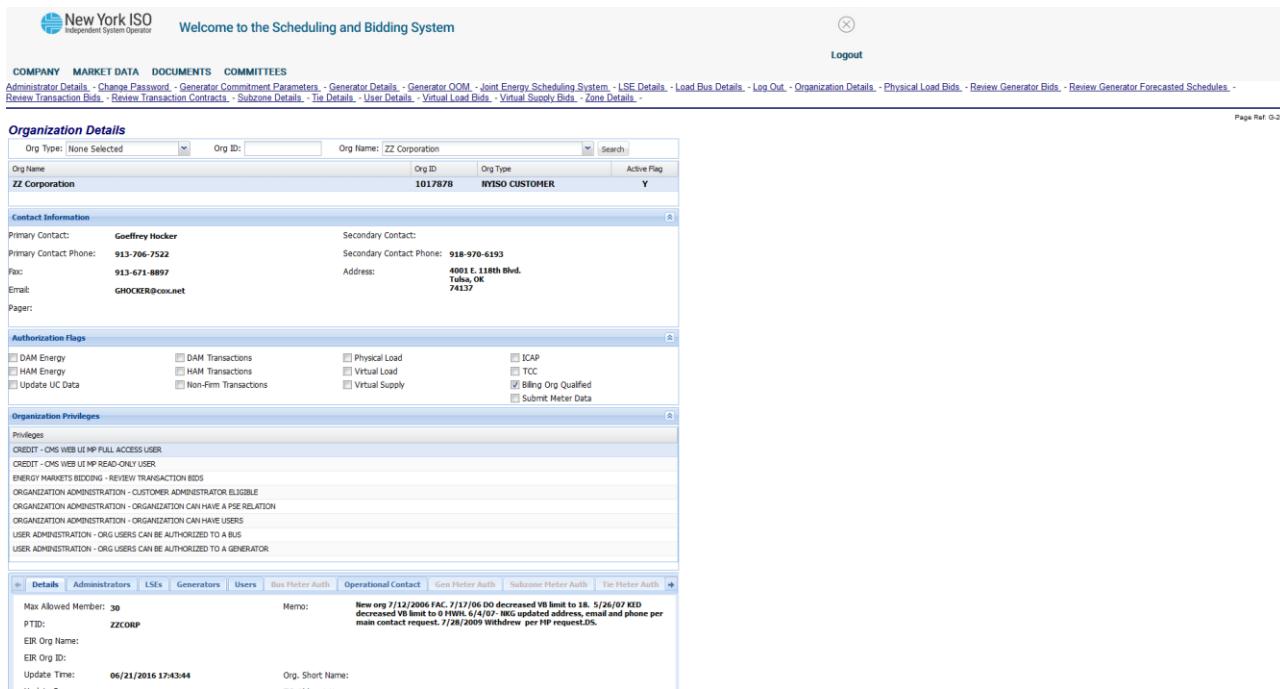
1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. From the Administrator menu frame, choose **Organization Details**.
3. Choose the desired **Org Name** from the corresponding drop-down field, which presents you with a list of the organizations that you are permitted to access.

**4.** Activate the **Search** Button.

 **To View Contact Information, Authorization Flags, and Organization Privileges for Organizations**

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose an organization to view as outlined in the corresponding procedure on page [87](#).  
The Organization's **Contact Information**, **Authorization Flags**, and **Organization Privileges** are shown, as illustrated in Figure 38, following.

**Figure 38: Organization Details display**



The screenshot shows the 'Organization Details' page of the New York ISO Scheduling and Bidding System. At the top, there is a navigation bar with links for 'Market Data', 'Documents', 'Committees', and 'Logout'. Below the navigation bar, there is a search bar with fields for 'Org Type', 'Org ID', 'Org Name', and a 'Search' button. The main content area is titled 'Organization Details' and contains three tabs: 'Contact Information', 'Authorization Flags', and 'Organization Privileges'. The 'Contact Information' tab shows details for Primary Contact (Goeffrey Hocker) and Secondary Contact (None). The 'Authorization Flags' tab lists various bid types and market types that the organization is authorized for. The 'Organization Privileges' tab lists specific user roles and system access levels. At the bottom of the page, there is a footer with links for 'Details', 'Administrators', 'LSEs', 'Generators', 'Users', 'Bus Meter Auth', 'Operational Contact', 'Gen Meter Auth', 'Subzone Meter Auth', and 'Tie Meter Auth'.

**3.** The authorization flags provide an Organization with the following abilities:

- **DAM Energy** – The organization is authorized to assign bid authorizations to its Users to view/submit/change bids for generators or Aggregations in the DAM.
- **HAM Energy** – The organization is authorized to assign bid authorizations to its Users to view/submit/change bids for generators or Aggregations in the hour-ahead market.
- **Update UC (Unit Commitment) Data** – The organization is authorized to assign bid authorizations to its Users to change Generator Commitment Parameters.

- **DAM Transactions** – The organization is authorized to assign bid authorizations to its Users to view/submit/change bids for transactions in the DAM.
- **HAM Transactions** – The organization is authorized to assign bid authorizations to its Users to view/submit/change bids for transactions in the hour-ahead market.
- **Non-Firm Transactions** – The organization is authorized to assign bid authorizations to its Users to view/submit/change bids for Non-Firm transactions.
- **Physical Loads** – The organization is authorized to assign bid authorizations to its Users to view/submit/change bids for loads.
- **Virtual Loads** – The organization is authorized to assign bid authorizations to its Users to view/submit/change bids for virtual loads.
- **Virtual Supply** – The organization is authorized to assign bid authorizations to its Users to view/submit/change bids for virtual supply in the DAM.
- **TCC** – The organization is authorized to assign authorizations to its Users to view TCC Market results and associated invoices.
- **ICAP** – The organization is authorized to assign bid authorizations to its Users to view/submit/change data in the automated ICAP auction.
- **Billing** – The organization is eligible to be selected to receive bills for registered generators, Aggregations, or LSEs. The actual selection of a generator, Aggregation, or LSE's billing organization is done by NYISO Stakeholder Services. See Section [6.2.3](#) or [6.2.4](#) for instructions on how to change the Billing Organization for a generator or LSE.
- **Metering related privileges** – The Organization is authorized to assign authorizations to its Users to view/submit data for loads in their service territories.



### **To View Administrators Currently Assigned to an Organization**

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose an organization to view as outlined in the corresponding procedure on page [87](#).
3. Scroll to the bottom of the display, then activate the **Administrators tab**. The Organization Administrators display is presented, as illustrated in Figure 39, following.

**Figure 39: Organization Administrators display**

| Details  | <b>Administrators</b> | LSEs | Generators | Users | Bus Meter Auth | Gen Meter Auth | Subzone Meter Auth | Tie Meter Auth |                    |          |
|--|-----------------------|------|------------|-------|----------------|----------------|--------------------|----------------|--------------------|----------|
| <table border="1"> <tr> <td>Administrator Name</td> <td>JSMITH97</td> </tr> </table> |                       |      |            |       |                |                |                    |                | Administrator Name | JSMITH97 |
| Administrator Name   | JSMITH97              |      |            |       |                |                |                    |                |                    |          |



### **To View additional Organization relationships**

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose an organization to view as outlined in the corresponding procedure on page [87](#).
3. Scroll to the bottom of the display, then activate the tab representing the relationship being sought, using the following as reference in doing so:

- The **Administrators** tab shows the administrator users for the Customer Organization and allows administrator users to be added/deleted.
- The **LSEs** tab shows the LSEs associated with the Customer Organization.
- The **Generators** tab shows the Generators or Aggregations associated with the Customer Organization.
- The **Users** tab shows the users associated with the Customer Organization.
- The **Bus Meter Authority** tab shows the Buses associated with the Meter Authority Organization. The selected Organization must be a Meter Authority Organization to access this tab.
- The **Gen Meter Authority** tab shows the Generators or Aggregations associated with the Meter Authority Organization. The selected Organization must be a Meter Authority Organization to access this tab.
- The **Subzone Meter Authority** tab shows the Subzones associated with the Meter Authority Organization. The selected Organization must be a Meter Authority Organization to access this tab.
- The **Tie Meter Authority** tab shows the Ties associated with the Meter Authority Organization. The selected Organization must be a Meter Authority Organization to access this tab.

#### **6.2.7. User Details**

Market Participant Administrators with the NYISO Customer or Guest classification can perform the following tasks.

- Add new Users to an organization
- View/edit a User's contact information and authorization flags
- Delete Users
- View/add/delete generators and Aggregations authorized to a User
- View/add/delete loads authorized to a User
- Grant/revoke Users privileges related to viewing/scheduling outages



#### **To Add a New User**

1. Log in to your Administrator account as outlined in the corresponding procedure on page 68.
2. From the Administrator menu frame, choose **User Details**
3. At the top of the page, activate the **Add User** button. The MIS presents a display for entering the new user's information (see Figure 40)

**Figure 40 : New User Contact and Authorization Flags display**

The screenshot shows the New York ISO Scheduling and Bidding System interface. At the top, there is a logo for 'New York ISO Independent System Operator' and a welcome message 'Welcome to the Scheduling and Bidding System'. Below the header, there are navigation links for COMPANY, MARKET DATA, DOCUMENTS, and COMMITTEES, along with several administrative links like 'Administrator Details', 'Change Password', etc.

The main area displays 'User Details' with search and filter fields for Org Name, User ID, Username, User Contact, and Organization Name. An 'Edit User' dialog box is open, showing the 'User Contact' field with the value 'Johh Smith'. The dialog also contains a 'Contact Information' section with fields for Primary Contact Phone, Secondary Contact Phone, Fax, Address Lines, Email, and Pager.

4. Enter the new User information
5. Via the **Active Flag** option, indicate whether the account is to be active or inactive.
 

**Special Note:** This feature allows the Market Participant Administrator to enter some of the information now and wait until later before allowing the User to access the account.
6. Select the authorization flags to be assigned to the User. The selections are as follows:
  - **DAM Generator** – The User is authorized to view/submit/change bids for generators or Aggregations in the DAM (Section 7.4)

- **HAM Generator** – The User is authorized to view/submit/change bids for generators or Aggregations in the hour-ahead market (Section [7.4](#))
  - **DAM Transaction** – The User is authorized to view/submit/change bids for transactions in the DAM (Section [7.6](#))
  - **HAM Transaction** – The User is authorized to view/submit/change bids for transactions in the hour-ahead market (Section [7.6](#))
  - **Physical Load** – The User is authorized to view/submit/change bids for loads (Section [7.5](#)).
  - **Virtual Load** – The User is authorized to view/submit/change bids for virtual loads in the DAM (Section [7.6.4](#)).
  - **Virtual Supply** – The User is authorized to view/submit/change bids for virtual supply in the DAM (Section [7.6.4](#)).
  - **Update Unit Commitment Data** – The User is authorized to view/change Generator Commitment Parameters for generators (Section [7.3](#)).
  - **Non-Firm** – The User is authorized to view/submit/change non-firm transactions (Section 7)
  - **ICAP** – The User is authorized to view data in the automated ICAP auction.
  - **Submit Meter Data** – The User is authorized to view/submit data for loads in their service territories.
  - **TCC** – The User is authorized to view TCC Market results and associated invoices.
  - **View Customer Statements** – User is given access to Consolidated Invoice and Daily Reconciliation Information
7. After all your entries have been made, activate the **Save** button. The MIS responds by confirming your entries.

#### **Special Notes**

Additional information needs to be entered for a new User. See the procedure beginning on page [77](#) for the assignment of User passwords, and the procedure beginning on page [97](#) for the assignment of Users to generators, Aggregations and loads.

The organization to which the User belongs also has a set of authorization flags. These serve as the total set of possible authorization flags that may be assigned to a User in that organization. For example, a User cannot be assigned the DAM Generator privilege if the organization is not authorized to bid DAM Generator. Further information about what organizations can and cannot do is provided in Section [6.2.3](#).

Finally, additional privileges must be assigned to a user to allow for more than viewing rights related to the ICAP and TCC markets. For details, please refer to the *NYISO ICAP Automated Market User's Guide* and the *NYISO TCC Automated Market User's Guide*, available from <https://www.nyiso.com/manuals-tech-bulletins-user-guides>.

#### **To View a User's Information**

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. From the Administrator menu frame, choose **User Details**.
3. From the corresponding drop-down list, choose only one of the following:
  - The **Org Name** of the User(s) you want to view, or
  - The **Username** of the User you want to view, or

- The **User Contact** name of the User you want to view.

4. Activate the **Search** button. The MIS responds by displaying the details for the selected User (see Figure 41).

**Figure 41: User Details display**

The screenshot shows the 'User Details' section of the New York ISO Scheduling and Bidding System. At the top, there is a header with the New York ISO logo and the text 'Welcome to the Scheduling and Bidding System'. Below the header, there is a navigation bar with links for COMPANY, MARKET DATA, DOCUMENTS, and COMMITTEES, along with links for Administer Roles, Administrator Details, Change Password, Entitlements, Generator Details, LSE Details, Load Bus Details, Log Out, Organization Details, and Subz.

The main area is titled 'User Details' and contains the following information:

| Org Name:    | None Selected | User ID: | TESTER1     | Username:         | TESTER1           | User Contact: | Test User | Search |
|--------------|---------------|----------|-------------|-------------------|-------------------|---------------|-----------|--------|
| User Contact | Username      | User ID  | Active Flag | Organization Name | Organization Type | Org Details   |           |        |
| Test User    | TESTER1       | 1094753  | Y           | ZZ Corporation    | NYISO CUSTOMER    |               |           |        |

Below this, there is a 'Contact Information' section with fields for Primary Contact Phone (555-555-5555), Secondary Contact Phone, Fax, Address, Email (Testing@test.com), and Pager.

The 'Authorization Flag' section contains several checkboxes for various permissions:

|  |  |   |   |  |
|--|--|---|---|--|
| <input type="checkbox"/> ICAP              | <input type="checkbox"/> DAM Generator | <input type="checkbox"/> DAM Transaction      | <input type="checkbox"/> Physical Load  | <input type="checkbox"/> Update Unit Commitment Data |
| <input type="checkbox"/> TCC               | <input type="checkbox"/> HAM Generator | <input type="checkbox"/> HAM Transaction      | <input type="checkbox"/> Virtual Supply | <input type="checkbox"/> View Customer Statements    |
| <input type="checkbox"/> Submit Meter Data |  | <input type="checkbox"/> Non-Firm Transaction | <input type="checkbox"/> Virtual Load   |  |

The 'Privileges' section includes an 'Add Privilege' button and a 'Delete All Privileges' button.

At the bottom, there is a 'Generators' tab with sub-options: Details, Generators, Buses, Ties, Subzones, Gens - Outages, Gens - Cost, and Certificates. There is also a 'Generator Name' search input field and buttons for Details, Add, Delete, and Delete All.



### To Delete a User

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose a user to view as outlined in the corresponding procedure on page [92](#).
3. At the top of the page, activate the **Delete User** button.
4. In the displayed confirmation pop-up window, choose **Yes**.



## To Modify a User's Contact Information or Authorization Flags

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose a user to view as outlined in the corresponding procedure on page [92](#).
3. At the top of the page, activate the **Edit User** button.  
A pop-up window is displayed, giving the Administrator the opportunity to modify details about the User (see Figure 42, following).

**Figure 42:** Edit User window

The screenshot shows the New York ISO Scheduling and Bidding System interface. At the top, there is a navigation bar with links for COMPANY, MARKET DATA, DOCUMENTS, COMMITTEES, Administer Roles, Administrator Details, Change Password, Entitlements, Generator Details, LSE Details, Load Bus Details, Log Out, Organization Details, Subzone Details, Tie Details, Trust Relationships, User Details, Zone Details, and Help.

The main window displays "User Details" for a user named "TESTER1". The "Edit User" dialog box is open over the main window, containing fields for Username ("TESTER1"), User Contact ("Test User"), Organization Name ("ZZ Corporation"), and a checked "Active Flag".

The "Contact Information" section in the dialog box includes fields for Primary Contact Phone (555-555-5555), Secondary Contact Phone, Fax, Address Line 1-5, Email (Testing@test.com), and Pager.

The "Authorization Flag" section in the dialog box includes checkboxes for various roles and permissions, such as ICAP, TCC, Submit Meter Data, DAM Generator, HAM Generator, HAM Transaction, Non-Firm Transaction, Physical Load, Virtual Supply, and Virtual Load.

At the bottom of the dialog box are "Save" and "Cancel" buttons.



## To Grant User Privileges

**Note:** Before privileges can be granted to users, they must be granted to the Organization with which the users are associated. This is done by the NYISO. If the privilege you are looking for is not displayed in the **Privileges** area of the Organization Details display for your organization (refer to Figure 38, on page [88](#)), contact the NYISO Stakeholder Services group as described in Section [4.2.1](#), "Changing Privileges/Authorizations, Contact Information, Market Participant Administrator and Organization Assignment, and Classifications," on page [36](#).

1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Display details for the desired user as outlined in the corresponding procedure on page [92](#).
3. On the User Details display, scroll down to the **Privileges** area (see Figure 43).

**Figure 43: Privileges Area of User Details Display**

The screenshot shows the 'User Details' screen of a software application. At the top, there are buttons for 'Edit User', 'Delete User', and 'Add User'. Below this is a search bar and a table with columns for User Contact, Username, User ID, Active Flag, Organization Name, and Organization Type. The data in the table is: User Contact (Bob Robertson), Username (BIGBOB), User ID (None Selected), Active Flag (Y), Organization Name (BobCo), and Organization Type (NYISO CUSTOMER). A 'Org Details' button is also present. Below the table is a 'Contact Information' section with fields for Primary Contact Phone (123-555-1212), Secondary Contact Phone, Fax, Address (4 Bobwhite Lane, Bobville, AZ 99999), Email (bob@bobco.com), and Pager. Under 'Authorization Flag', there are several checkboxes for various transaction types. At the bottom, a red box highlights the 'Privileges' section, which contains a table with a single row labeled 'Privileges'. Below this table are buttons for 'Add Privilege', 'Delete Privilege', and 'Delete All Privileges'. At the very bottom of the screen are tabs for 'Details', 'Generators', 'Buses', 'Ties', 'Subzones', and 'Gens - Outages'.

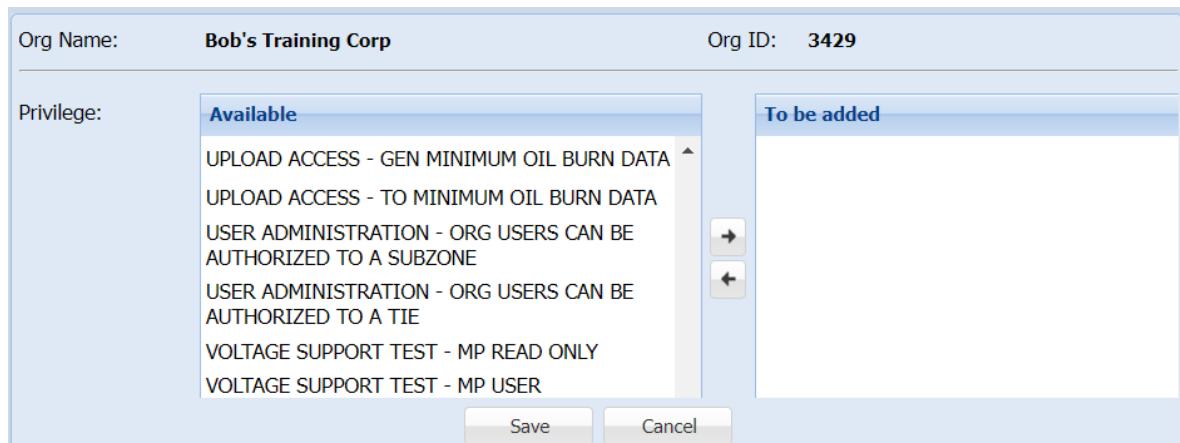
4. Beneath the Privileges pane, activate the **Add Privilege** button (see Figure 43).

A window opens, displaying a list of privileges available for assignment to the user (see Figure 44). The following is a list of available privileges and their purpose

- **CREDIT - CMS WEB UI MP READ-ONLY USER:** provides the user view access to all pages in the Credit Management System (CMS) for the MP the user represents.
- **CREDIT - CMS WEB UI MP FULL ACCESS USER:** provides the user full access to all functionality offered in the CMS for the MP the user represents.

- ***ENERGY MARKETS BIDDING - REVIEW TRANSACTION BIDS:*** provides the user access to review transactions for which their Organization is the FRP Organization. All users in the system on May 17, 2011 have this privilege. Users added to the system on or after May 17, 2011 must have this privilege explicitly granted by their MP Administrator. MP Administrators may add or remove this privilege from any of their users.
- ***MISC - RLS MP UPDATE COSTS:*** allows users to enter Cost Data for their appropriate generators or Aggregations via the Reference Level Software (RLS) application. Requires ***MISC-RLS MP VIEW COST*** privilege to also be granted.
- ***MISC - RLS MP VIEW COSTS:*** allows users to review Cost Data for their appropriate generators or Aggregations via the RLS application.
- ***MISC - RLS MP VIEW REFERENCES:*** allows users to review final References for their appropriate generators or Aggregations via the RLS application.
- ***OMS - OMS GO OBSERVER:*** In the Outage Management System(OMS), allows MP Generation owners to view outages.
- ***OMS - OMS GO SCHEDULER:*** In the Outage Management System(OMS), allows MP Generation owners to schedule outages.
- ***OMS - OMS TO OBSERVER:*** In the Outage Management System(OMS), allows MP Transmission owners to view outages.
- ***OMS - OMS TO SCHEDULER:*** In the Outage Management System(OMS), allows MP Transmission owners to schedule/approve outages.
- ***GOCP - GOCP GO OBSERVER:*** In the GOCP, allows MP Generation owners to view any forced outage records for associated Aggregators.
- ***GOCP - GOCP GO SCHEDULER:*** In the GOCP, allows MP Generation owners to schedule any forced outage records for associated Aggregators.
- ***GOCP - GOCP TO OBSERVER:*** In the GOCP, allows MP TO view existing outages and SRA requests. TO users with either role will only be able to view and access the outages and SRA requests associated with their organization.
- ***GOCP - GOCP TO SCHEDULER:*** In the GOCP, allows MP TO enter and modify outage requests, as well as view and print outage and SRA request lists.
- ***Aggregation System - MP USER:*** In the Aggregation System, allows MP User to interact with and analyze information associated with its Aggregation(s) and DER(s)
- ***Aggregation System - MP READ ONLY:*** In the Aggregation System, allows MP User to view and analyze information associated with its Aggregation(s) and DER(s).

**Figure 44: Add User Privilege Window - Example**



5. Assign the desired privilege to the user in question by choosing the corresponding listing in the **Available** pane then activating the right-pointing arrow to move the listing to the **To Be Added** pane.
6. Activate the **Save** button.

The chosen privilege is assigned to the user in question, as now reflected in the Privileges area of the User Details display.



***To View/Modify User Authorization Assignments to Generators, Aggregations, and Load Buses***

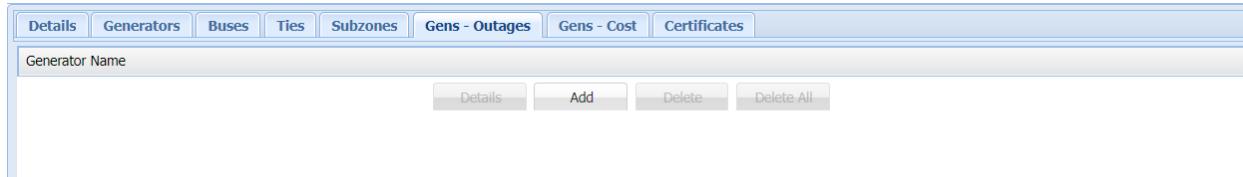
1. Log in to your Administrator account as outlined in the corresponding procedure on page [68](#).
2. Choose a user to view as outlined in the corresponding procedure on page [92](#).
3. Scroll to the bottom of the page and activate either the **Generators** or **Buses** tab.  
On each of these tabs, you may add to or delete from the list of authorized Users for Generators, Aggregations, and/or Load Buses.



***To View/Modify User Authorization Assignments to Generators or Aggregations in the Outage Management System (OMS)***

1. In the tabbed section near the bottom of the User Details display, activate the **Gens - Outages** tab (see Figure 45).

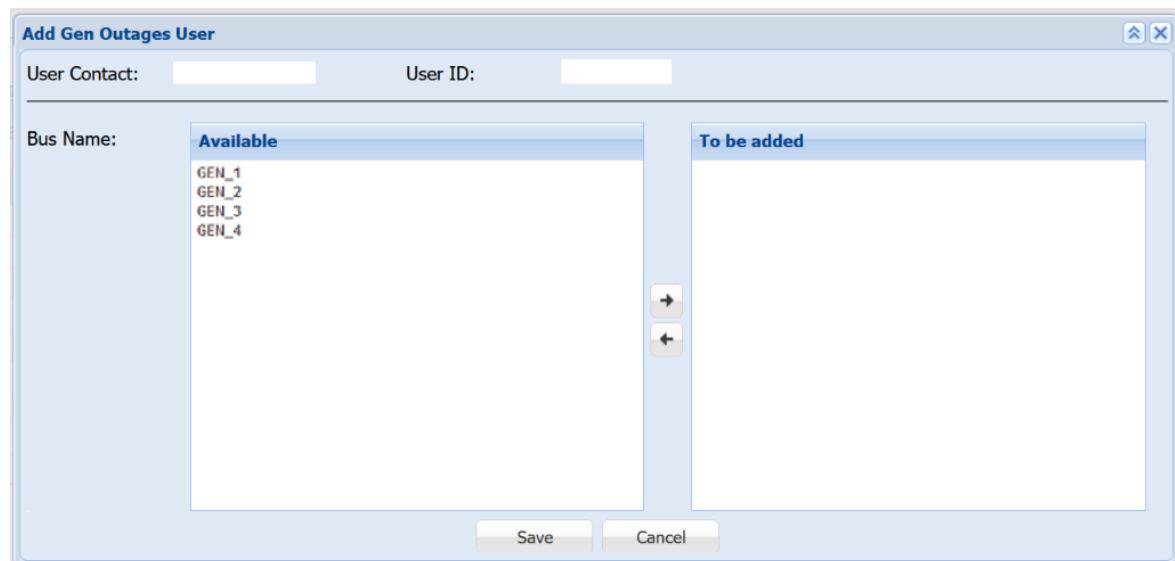
**Figure 45: Gens – Outages Tab on User Details Display**



2. Beneath the Generator Name pane, activate the **Add** button (see Figure 45).

A window opens, displaying a list of generators and Aggregations available for assignment to the user for the purpose(s) of viewing/scheduling (as applicable) generator and Aggregation outages (see Figure 46).

**Figure 46: Window Displaying List of Generators or Aggregations Available for Assignment to the User in Relation OMS Privileges**

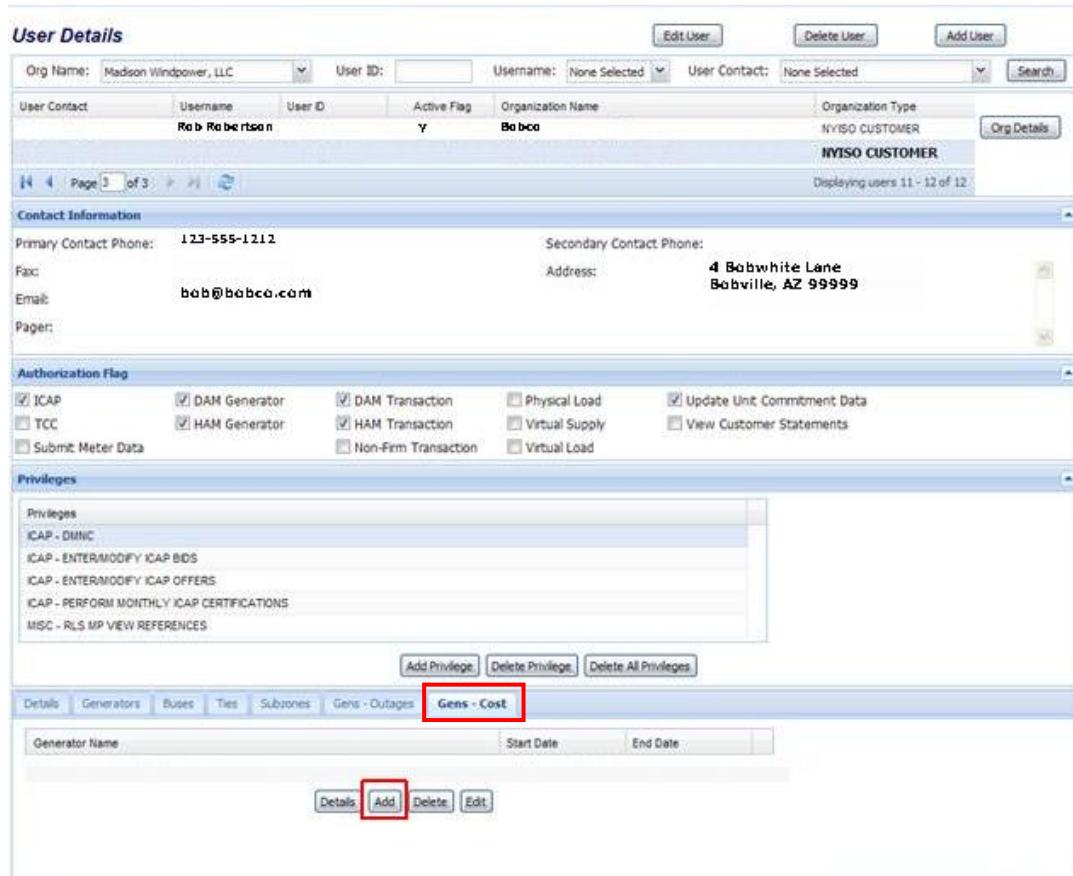


3. Assign the desired generator or Aggregation to the user in question by choosing the corresponding listing in the **Available** pane then activating the right-pointing arrow to move the listing to the **To Be Added** pane.
  4. Activate the **Save** button.
- The chosen generator or Aggregation is assigned to the user in question for purposes of viewing/scheduling (as applicable) generator outages, as now reflected on the **Gen - Outages** tab of the User Details display.

 **To View/Modify User Authorization Assignments to Generators or Aggregations in the Reference Level Software (RLS) application**

1. In the tabbed section near the bottom of the User Details display, activate the **Gens - Cost** tab (see Figure 47).

**Figure 47: Gen – Cost Tab**

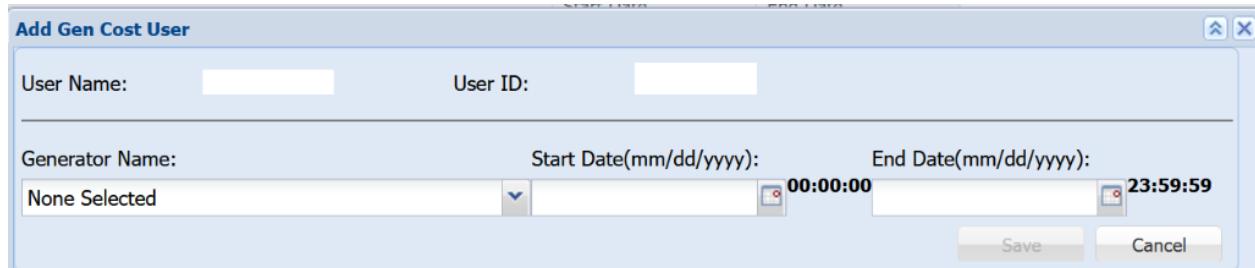


The screenshot shows the 'User Details' interface. At the top, there are buttons for 'Edit User', 'Delete User', and 'Add User'. Below this is a search bar and a table with user contact information. The 'Contact Information' section includes fields for Primary Contact Phone (123-555-1212), Secondary Contact Phone, Fax, Address (4 Bobwhite Lane, Bobville, AZ 99999), Email (bob@babca.com), and Pager. Under 'Authorization Flag', several checkboxes are present, with 'ICAP' and 'DAM Generator' checked. The 'Privileges' section lists various ICAP-related permissions. At the bottom, a tabbed navigation bar has 'Gens - Cost' selected, and below it, there are buttons for 'Details', 'Add' (which is highlighted with a red box), 'Delete', and 'Edit'.

2. On the **Gen – Cost** tab, activate the **Add** button (see Figure 47).  
The system displays the Add Gen Cost User window.
3. In the Add Gen Cost User window (see Figure 48), choose, from the **Generator Name** drop-down list, the Generator or Aggregation with which the user should be associated for the purpose(s) of viewing/updating Cost Data and viewing References (as applicable) via the RLS application.
4. In the corresponding field on the Add Gen Cost User window, specify the **Start Date** on which the user should be able to view/update Cost Data and view References (as applicable) via the RLS application for the previously chosen Generator or Aggregation.
5. Activate the **Save** button.

The chosen generator or Aggregation is associated with the user for purposes of viewing/updating Cost Data and viewing References (as applicable) via the RLS application, as will be reflected on the **Gens - Cost** tab of the User Details display.

**Figure 48: Add Gen Cost User Window**



## 7. Market Participant User Tasks

### 7.1. Introduction

Market Participant Users have two primary methods of interacting with the NYISO MIS. The methods are:

1. **Web-Based Market Interactions** – where access is provided through a series of Web-based, interactive displays accessible on the Internet.
2. **Upload/Download Batch Procedures** – where sets of data files are accessed or submitted through an upload/download process in the Internet.

This section addresses the first of these subjects, Web-based market interactions. It focuses on the Market Participant User displays and tasks that can be performed by viewing data and initiating actions from these displays. Section 8 of this Guide discusses how these same tasks can be accomplished through upload/download procedures. Section 8 includes Data Dictionaries that describe all of the values that appear on the User displays and also defines which screen entries are mandatory and which are optional.

Section [6.1](#) provides additional information regarding Market Participant Administrators, Key Display Features, Secure Communications with the MIS, and a list of MIS Data. The Market Participant User should review Section [6.1](#) to obtain a better understanding of MIS integration.

#### 7.1.1. Market Participant User Display Overview

##### **Definition**

A **Market Participant User** is a NYISO Customer that is authorized, through its respective Market Participant Administrator, to submit and/or modify day-ahead and hour-ahead bids in the market. Each User's interaction with the MIS is limited to the set of generators, Aggregations, loads, and User permissions defined by the Market Participant Administrator. A Market Participant User may also be a Guest that has view-only privileges with the MIS.

##### **Menu Names**

The name appearing above the top row of displays refers to the name appearing in the User menu frame that sits at the top of the display area. See Section [6.1.2](#), Key Display Features, for a general description of menu frame and display/results frame.

#### 7.1.2. Key Display Features

Please refer to Section [6.1.2](#) for a description of selection and entry features, the validation process, SUBMIT actions, and the display layout.

### 7.1.3. Market Participant User Login

The Market Participant User logs in to the MIS through the User Login Page. The following procedure outlines the steps in this process.



#### To Log in to the MIS as a Market Participant User

1. Point your browser to the MIS Home Page at [www.nyiso.com](http://www.nyiso.com).
2. From this page, choose **OASIS**.  
The Market Data Exchange is displayed.

**Note:** Alternatively, you may point to **Market Data** followed directly by **Market Access Login**. In this scenario, proceed directly to step 4.

3. Choose **Market Access**.
4. Under **Bidding & Scheduling**, choose **Marketplace Login (User & Admin)**.  
With the proper Digital Certificate, the User Login display is presented, as illustrated in Figure 49.

**Figure 49: User Login display**

5. Enter the applicable **User Name** and **Password**, then activate the **SUBMIT** button.

**Note:** If the User Name and Password combination are not authorized, an error message will occur.

When Login is completed, the Market Participant User is presented with the User menu frame, illustrated in Figure 50 .

**Figure 50: User Menu Frame**



Figure 50 shows the categories of displays that a Market Participant User is permitted to access. The list of displays may actually be fewer in number than what is shown above. Specific access depends on the User's authorization flags.

The menu frame remains at the top of the screen throughout the time the User is logged in. The Market Participant User chooses the desired displays from the menu frame.

**Special Notes:** Activating the **Log Out** hyperlink in the User menu frame allows a User to exit the MIS application. This clears the session and connection on the NYISO MIS server. Although log out is not mandatory, it is good practice for system security. After logging out, the User's browser will automatically refresh to display the NYISO home page.

### ***Remaining Sections***

The remaining parts of Section 7 describe the User displays and the tasks that are performed by the Market Participant User through the MIS or the Self-Service Account Management (SSAM) application. The main topics described further in section are as follows:

- User Administration (Section 7.2) – This section addresses aspects of the user's particular setup. The specific topics covered are:

User Detail

Change Password

Organization Detail

Authorized Generators

LSEs

Authorized Loads

- Generator Commitment Parameters (Section 7.3) – This section addresses the tasks that are performed through the displays associated with the Generator Commitment Parameters process.
- Generator and Ancillary Services Bids (Section 7.4) – This section addresses the tasks that are performed through the displays associated with the following processes:

New Generator Bids

Review Generator Bids

- Load Bids (Section 7.5) – This section addresses the tasks that are performed through the displays associated with the Load Bids process.

- Transaction Bids (Section [7.6](#)) – This section addresses the tasks that are performed through the displays associated with the following processes:

New Transactions

Review Transactions

Confirm Transactions

## **7.2. User Administration**

The MIS contains several administrative displays for the Market Participant User to view detailed information about the User, organization, generators, Aggregations, LSEs, and loads associated with the User's account.

Except for the ability to change user contact information and passwords in MIS and passwords in SSAM, the User has read-only access to these displays. To change any of the read-only data, the Market Participant User must contact his/her assigned Market Participant Administrator. The Market Participant Administrator may be able to make the desired changes through specially assigned displays, or work through the NYISO Administrator to implement the changes.

There are six basic tasks associated with the administration of the User's account:

1. View/Change User Details (Section [7.2.1](#))
2. Change Password (Section [7.2.2](#))
3. View Organization Details (Section [7.2.3](#))
4. View Generator Details (Section [7.2.4](#))
5. View LSE Details (Section [7.2.5](#)).
6. View Load Bus Details (Section [7.2.6](#))

For additional information on the relationships of Administrators, Users, organizations, generators, Aggregations, LSEs, and loads to one another, see Section [6.1.5](#), MIS Classification Data.

### ***Login and Menu Frame Selection***

Prior to each task, the Market Participant User is required to Login and make a selection through the User menu frame. See Section [7.1.3](#) for further information on Login.

### ***Authorization***

The User is authorized to view only User detail, organization detail, authorized generators or Aggregations, LSEs, and authorized load information assigned to the Market Participant User's account. The MIS prevents unauthorized access to other User account information.

### 7.2.1.User Details

#### **Description**

The User Details display shows the contact information and authorization flags associated with the User. The User Details display consists of the following sections:

- User Detail Search

**Note:** If you are not an MP Administrator, you will be able to access only your own User account.

- Generators – The list of Generators and Aggregations for which the User is authorized.
- Buses – The list of Load Buses for which the User is authorized

The following procedure describes how to access the User Detail display.

#### **To Access the User Details**

1. Log in to your User account as outlined in the corresponding procedure on page [102](#).
2. From the User menu frame, choose **User Details**.
3. Choose only one of the following:
  - **Org Name** or
  - **Username** or
  - **Contact Name**
4. Activate the **Search** button. The MIS responds by displaying the details for the selected User.

**Note:** The Market Participant may modify the contact information for his/her own account by activating the **Edit User** button.

5. The authorization flag assignments dictate the type of bids Users may submit and modify. The User may not change any of these assignments; any changes must be submitted to the Market Participant Administrator:
  - If the DAM or HAM Generators privilege is not assigned, then the Market Participant User will not see the “New Generator Bids” option in the menu frame.
  - If the DAM or HAM Transactions privilege is not assigned, then the Market Participant User will not see the “New Transaction,” and “Confirm Transactions” options in the menu frame.

#### **To View Authorized Generators, Aggregations, and Load Buses**

1. Log in to your User account as outlined in the corresponding procedure on page [102](#).
2. From the User menu frame, choose **User Details**.
3. Access the details for desired user as outlined in the corresponding procedure on page [105](#).
4. Scroll to the bottom of the page and activate either the **Generators** tab or **Buses** tab.

### **7.2.2. Change Password**

The Change Password functionality is performed through one of two NYISO applications.

All Market Participants can change their own passwords, when prompted by an expiration notice or when a password has been forgotten, through the NYISO Self-Service Account Management (SSAM) application. Market Participants may also change a known and unexpired password at any time directly through the NYISO MIS application.

Market Participant Administrators can also set the initial MIS user password or change the password of those Organizational Users they administer when the user does not have a valid linked certificate AND has forgotten their password. This functionality is accessed directly through the NYISO MIS application.

**Note:** Beginning on May 15, 2017, MIS passwords will expire 13 months from when they were last set. An expired password can be rest by the user or the user's administrator.

#### ***Prerequisites to changing your MIS user password in the SSAM application***

Before changing your password, the following prerequisites must be completed:

- The user is in possession of a valid certificate that is currently linked to their MIS account.
- The user knows the current password.
- The certificate is installed in a web browser.



#### ***To Change Your Password Using the SSAM Application***

1. Navigate to the NYISO Self-Service Account Management (SSAM) application located on the NYISO Market Access Login page at:  
[http://www.nyiso.com/public/markets\\_operations/market\\_data/market\\_access\\_login/index.jsp](http://www.nyiso.com/public/markets_operations/market_data/market_access_login/index.jsp).
2. Select the desired certificate from a list if prompted.
3. Enter your current password.
4. Enter a new password, adhering to complexity and reuse requirements detailed on the screen.
5. The password is set to the new password value.

#### ***Prerequisites to resetting your forgotten password in the SSAM application***

Before resetting your forgotten password, the following prerequisites must be completed:

- The user is in possession of a valid certificate that is currently linked to their MIS account.
- The certificate is installed in a web browser.



#### ***To Reset Your Forgotten Password Using the SSAM Application***

1. Navigate to the NYISO Self-Service Account Management (SSAM) application located on the NYISO Market Access Login page at:

[http://www.nyiso.com/public/markets\\_operations/market\\_data/market\\_access\\_login/index.jsp](http://www.nyiso.com/public/markets_operations/market_data/market_access_login/index.jsp)

2. Select the desired certificate from a list if prompted.
3. Select the reset password option.
4. Select voice or text method to receive PIN.
5. Once PIN is received, enter PIN into the SSAM when prompted and enter a new password, adhering to complexity and reuse requirements detailed on the screen.
6. The password is set to the new password value.

**Figure 51: NYISO SSAM Password Change display**

The screenshot shows a web browser window for 'NYISO Account Services' with the URL <https://services.pn2.nyiso.com/acc>. The title bar says 'NYISO Account Services'. The main content area has a heading 'Change Password'. On the left, there's a section titled 'Change Existing Password' with instructions about password changes and criteria. It includes two yellow callout boxes: one for 'Create or Reset Password' and another for 'Unlink Certificate'. On the right, there are input fields for 'User Name' (set to 'MPUSER'), 'Current Password', 'New Password', and 'Confirm New Password'. A large green 'Change Password' button is at the bottom right. The NYISO logo is in the top right corner of the page.

### ***Prerequisites to changing your MIS user password in the MIS application***

Before changing your password, the following prerequisites must be completed:

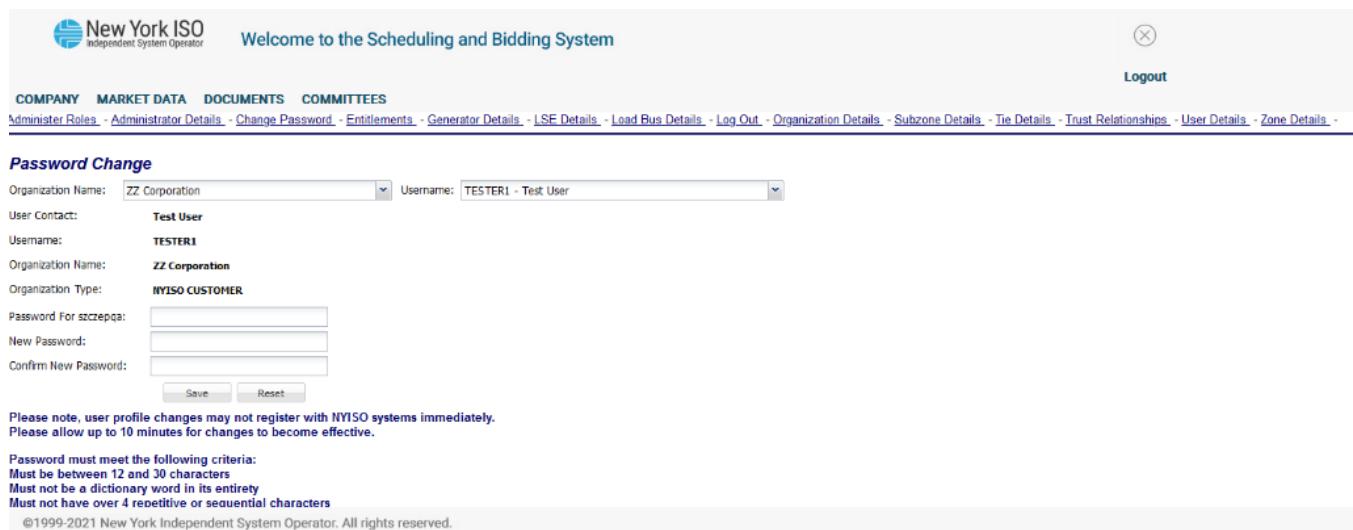
- The user is in possession of a valid certificate that is currently linked to their MIS account.
- The user knows the current password.
- The current password has not yet expired.

- The certificate is installed in a web browser.

 **To Change Your Password Using the MIS Application**

- Log in to your MIS User account.
- From the menu frame, choose **Change Password**.
- Enter a new password and then enter it again for confirmation.
- After the password has been entered, activate the **Save** button. The MIS will confirm acceptance of the password.

**Figure 52: NYISO MIS Password Change display**



### 7.2.3. Organization Details

#### Description

The Organization Details display shows information about the Organization to which the user is assigned.

This display consists of the following information:

- Organization Contact Information
- Organization Authorization Flags
- Organization Privileges
- MP Administrator Users of the Organizations

## **To Access the Organization Details**

1. Log in to your User account as outlined in the corresponding procedure on page [102](#).

2. From the User menu frame, choose **Organization Details**.

A User can see the organization details, contact information, bid authorizations, and administrators for their organization. This display is the same as that used by the MP Administrators to view Organization Details as described on page [87](#) and illustrated on page [88](#).

**Note:** As opposed to the MP Administrator, the User may not modify any Organization data.

### **7.2.4. Generator Details**

#### **Description**

The Generator Details display shows information about the Generator and Aggregation for which the User is authorized.

This display consists of the following information:

- Generator and Aggregation Contact Information
- Generator and Aggregation Limits
- Generator and Aggregation Authorization Flags
- Generator Physical Attributes
- Billing Organization for the Generator or Aggregation
- LSE for the Generator or Aggregation (if applicable)
- Administrative Organization for the Generator or Aggregation
- MP Administrator Users for the Generator or Aggregation
- Buses associated with the Generator or Aggregation (if applicable)
- Metering Authority for the Generator or Aggregation

## **To Access the Generator Details**

1. Log in to your User account as outlined in the corresponding procedure on page 102.
2. From the User menu frame, choose **Generator Details**

This display is the same as that used by the MP Administrators to view Generator Details, as illustrated in Figure 32 on page [79](#).

**Note:** As opposed to the MP Administrator, the User may not modify any Generator or Aggregation data.

The specific tasks that the User may perform with these generators and Aggregations are controlled by the authorization flags assigned to the User's account and the authorization flags associated with the generator or Aggregation.

 **Special Note:** The authorization flags assigned to a User's account are managed and can be changed by the corresponding Market Participant Administrator. In contrast, the authorization flags associated with a generator or Aggregation can be changed only by the NYISO Administrator, as outlined under Section [4.5](#), "Updating Generator and Aggregation Limits, Physical Parameters, and Authorization Flags," beginning on page [43](#).

### **7.2.5. LSE Details**

The LSE Details display shows information about the LSEs of Load Buses for which the user authorized.

This display consists of the following information:

- LSE Contact Information
- MP Administrators of the LSE
- Administrative Organizations for the LSE
- Billing Organization for the LSE
- Generators or Aggregations associated with the LSE (if applicable)

## **To Access the LSE Details**

1. Log in to your User account as outlined in the corresponding procedure on page 102.
2. From the User menu frame, choose **LSE Details**

This display is the same as that used by the MP Administrators to view LSE Details, as illustrated in Figure 39, on page [83](#).

**Note:** As opposed to the MP Administrator, the User may not modify any LSE data.

### **7.2.6. Load Bus Details**

The Load Details display shows information about the Load Buses for which the User is authorized.

This display consists of the following information:

- Load Bus Authorization Flags
- Metering Authority for the Load bus
- LSE for the Load Bus

Generator for the Load bus (if applicable)

### **To Access the Load Bus Details**

1. Log in to your User account as outlined in the corresponding procedure on page [102](#).

This display is the same as that used by the MP Administrators to view Load Bus details, as described and illustrated on page [86](#).

**Note:** Note that as opposed to the MP Administrator, the User may not modify any Load Bus data.

The specific tasks that the User may perform with these loads are controlled by the authorization flags assigned to the User's account.

## **7.3. Generator Commitment Parameters**

The Generator Commitment Parameters are different from the generator, Aggregation, load, and transaction bid data (covered in Sections [7.4](#) through [7.6](#)) because they involve non time-varying data. This means that changes that are made go into effect immediately and will affect the consideration of generator bids in the day-ahead and hour-ahead markets.

Note: Aggregations do not bid Unit Commitment Data as they are dispatch-only Resources that are not eligible for a start-up period, or to submit a start-up or minimum generation Bid.

There are two basic tasks associated with viewing/changing generator commitment parameters:

- View/Change Generator Commitment Parameters (Section [7.3.1](#))
- View Generator Detail (Section [7.2.4](#)).
- Users that are not authorized for any units will not see this menu option.

### **7.3.1. View/Change Generator Commitment Parameters**

#### ***Introduction***

The Market Participant User has the ability to change generator parameters that are non-time varying in nature. These changes can be made at any time and go into effect with the next running of SCD or SCUC — whichever is first.

 **Special Note:** Energy bids are associated with current generator commitment data such that if generator commitment data is changed subsequent to submittal of a given Energy bid, that bid will be associated with the generator commitment data as entered **prior** to any changes having been made to the data. Only those Energy bids submitted after a change in generator commitment data will be associated with the newly entered generator commitment data. In order to associate a pre-existing Energy bid with subsequently updated generator commitment data, you must either (a) resubmit or update the Energy bid or (b) in the case of the Start-up Cost, use the hourly single-point start-up bid parameter in lieu of the start-up cost curve.

 **Special Note:** BTM:NG Resources and ESRs must submit prescribed unit commitment data.

### **Prerequisites**

Before beginning the task of viewing/changing generator commitment parameters, you should make sure that the “Update UC Data” authorization flag is assigned to your account. (See Section [6.2.7](#) on User Details) BTM:NG Resources will not be able to submit Unit Commitment data.



### **To View/Change Generator Commitment Parameters**

1. Log in to your User account as outlined in the corresponding procedure on page [102](#).
2. From the User menu frame, choose **Generator Commitment Parameters**. The Generator Commitment Parameters display is presented, as illustrated in Figure 53, following.
3. From the **Select Generator** drop-down field, which lists the generators that you are authorized to access, choose the generator whose data you want to review:
4. Activate the **DISPLAY** button. The MIS responds by presenting the information for the selected generator in the display/results frame. The Generator name appearing just above the Minimum Run Time identifies the generator to which the information shown pertains.

**Figure 53: Generator Commitment Parameters display**

Page Ref: E-2

**Generator Commitment Parameters**

Select Generator:

Before submitting changes, you need to display the unit, even if parameters do not exist yet.

Current Generator: None Selected  
 Last Changed By:  
 Last Changed Date:

|                                  |                      |
|----------------------------------|----------------------|
| Minimum Run Time (hrs)           | <input type="text"/> |
| Minimum Down Time (hrs)          | <input type="text"/> |
| Maximum Stops per Day            | <input type="text"/> |
| Start up Notification Time (hrs) | <input type="text"/> |

**Startup Cost Curve**

|                   |                      |                      |                      |                      |                      |                      |                      |
|-------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Hours Off Line    | <input type="text"/> |
| Startup Cost (\$) | <input type="text"/> |

**Startup Notification Time Curve**

|                |                      |                      |                      |                      |                      |                      |                      |
|----------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Hours to Start | <input type="text"/> |
| Hours Off Line | <input type="text"/> |

5. View/change run time, down time, stops per day, and notification time:

- Minimum Run Time (hrs)** – This is the minimum amount of time that the unit must run if committed to run. This parameter is respected for the dispatch day, which ends at Midnight. The maximum Minimum Run Time that can be submitted is 24 hours.

The NYISO's market software will honor a Generator's minimum run time only if it can be completed by the end of the Dispatch Day. The market software will schedule an uneconomic Generator off-line at the end of the Dispatch Day (at midnight) even if its minimum run time has not yet been completed.

Similarly, Bid Production Cost Guarantee ("BPCG") will protect an eligible Supplier's Bids over the Dispatch Day, but will not protect a Supplier's Bids beyond the Dispatch Day even if the Supplier is bidding on behalf of a Generator that is completing its minimum run time. BPCGs are calculated for a Dispatch Day; bids for hours that fall outside the Dispatch Day will be considered in the next day's BPCG. The NYISO's market software will shut a Generator off at the end of the Dispatch Day unless it is economic in the next Dispatch Day.

Generators committed in the Day-Ahead Market or in the Real-Time Market via a Supplemental Resource Evaluation (SRE) that are not able to complete their minimum run time within the Dispatch Day in which they are committed are treated in the settlements system as Late Day Start Generators. These Generators are eligible to include in their Start-Up bid expected net costs of operating on the day following the Dispatch Day at the minimum operating level specified for the hour in which the Generator is committed, for the hours necessary to complete the Generator's minimum run time. The permitted expected net costs are the minimum generation cost at the Generator's minimum operating level minus the projected LBMP revenues for the MWs produced for the hours that the Generator must operate in order to satisfy the bid minimum run time.

For example, a Supplier submits a Start-Up Bid of \$1,000 and a Minimum Generation Bid of \$600/hr for its Generator, and the Supplier's projection of the LBMP revenues for each hour of the following day is \$400/hour, and the Generator has a minimum run-time of six hours. The Generator would require \$200 (\$600 - \$400) in additional start-up revenues for each hour that generator must run of the day following the Dispatch Day in order to satisfy its 6-hour minimum run time.

If the Generator is started after Hour Beginning ("HB") 18, the Supplier would be expected to increase its Start-Up Bids for the hours between 19 and 23 to maintain a recovery in the Dispatch Day of the expected costs of running the Generator to satisfy its minimum run time. The supplier must submit economic Bids to ensure the Generator is scheduled in the DAM or RT for the hours required to meet its minimum run time on the following Dispatch Day (in this case 6 hours, but up to a maximum of 24 hours).

An example of such a structured Bid is provided below.

| Start-Up Hour  | Expected Hourly Cost Net of Expected LBMP Revenue | Start-Up Bid |
|----------------|---|--------------|
| 6 P.M. (HB 18) | \$0   | \$1,000      |
| 7 P.M. (HB 19) | \$200   | \$1,200      |
| 8 P.M (HB 20)  | \$200   | \$1,400      |
| 9 P.M (HB 21)  | \$200   | \$1,600      |
| 10 P.M (HB 22) | \$200   | \$1,800      |
| 11 P.M (HB 23) | \$200   | \$2,000      |

Additionally, it is the obligation of a Late Day Start Generator to submit bids for all hours required to satisfy the minimum run time for the day following the Dispatch Day that the Generator was started-up. These bids must be priced such that the generator will be accepted and scheduled by either the Day-Ahead or Real-Time market scheduling systems. If the Generator chooses to self-commit on the day following the Dispatch Day that the Generator was started-up in order to meet its minimum run time, the Generator's eligibility to recover its Late Day Start Start-Up bid will not be affected. However, the Generator will not ordinarily be eligible to receive a BPCG for that day.

NYISO Operations is not expected to DARU or SRE a Generator on the day following the Dispatch Day that the Generator was started-up in order to assist the Generator's efforts to satisfy its bid minimum run time. Rather, Generators are expected to bid in a manner that ensures their continued commitment.

If a Generator is instructed by the NYISO not to operate to the MW level specified in the bid submitted for the hour that the generator was started-up (*e.g.* if the Generator is instructed to derate or to cease operating) in order to address a reliability issue that is not related to the Generator's own operation, the Generator will be treated as though it ran at the required minimum operating level for purposes of determining if proration of a Start-Up bid, including but not limited to Late Day Start Start-Up bids, is appropriate.

Start-Up Bids that include late day start costs are subject to possible mitigation. The Start-Up component of the Late Day Start Start-Up bid is evaluated using the applicable Start-Up reference level. However, Late Day Start Start-Up bids also incorporate the component that represents net projected hourly costs (minimum generation costs minus LBMP revenues) for the hours that the Generator operated on the day following the Dispatch Day in order to satisfy minimum run time. The NYISO develops

Late Day Start Start-Up reference levels for the Generator based on historical data that approximates this component. In cases where mitigation of the Late Day Start Start-Up bid is warranted, the computed reference will be used in all settlements. In many cases, the Late Day Start Start-Up bids will increase hourly and the computed reference will increase hourly to account for the Generator's operation on the day following the Dispatch Day.

Inclusion of an excessive minimum run time or other value in/with a bid may result in mitigation in accordance with the Market Mitigation Measures that are set forth in Attachment H (Section 23) of the NYISO's Market Administration and Control Area Services Tariff. Where mitigation is appropriate, the Generator will not be permitted to recover a BPCG that compensates the Generator for costs in excess of revenues for hours beyond the Generator's minimum run time reference level.

The NYISO offers Suppliers an opportunity to consult with the Market Mitigation and Analysis Department if the Start-Up bid submitted for a Generator is mitigated to a level that does not permit recovery of the bid costs of a Generator that was started late in the Dispatch Day.

- b. **Minimum Down Time (hrs)** x – This is the minimum amount of time that the unit, once stopped, must remain down before being committed again.
- c. **Maximum Stops Per Day** – This is the maximum number of times that a unit may be stopped and then started again in a single day. This number must be greater than or equal to one (1) and less than 10. The only stops that are counted are stops put in by the software. Bidding yourself off is not a stop that counts to the max stops per day value.
- d. **Startup Notification Time (hrs)** – This is the time that notification must be given to a generator in advance of being asked to startup. The value inputted in this field indicates that the generator will be at their bid minimum generation level, will be synchronized to the electric grid, and will be ready to receive base points. For example, a value of 2.0 is input. This means that in 2 hours from notification, which is the posting of results, your generator could be at their bid minimum generation level, on line, synchronized to the grids and ready to receive base points.

 **Special Note:** If you have values in both the *Startup Notification Time* and the *Startup Notification Time Curve* fields, the values in the curve will be used for evaluation

6. View/change start-up cost curve data:

- Up to six pairs of points may be specified that define a piece-wise linear curve.
- Each pair of points defines the hours off-line (hrs) and its corresponding Startup Cost (\$).

**Special Note:** If you have values in both the *Startup Bid Field* and the *Startup Cost Curve* fields, the value in the *Startup Bid Field* will be used for evaluation.

7. View/change startup notification time curve data:
  - Up to six pairs of points may be specified that define a piece-wise linear curve.
  - Each pair of points defines the Hours to Start and its corresponding Hours Off Line.
  - The curve must be monotonically increasing. This means that as the number of Hours Off Line grows bigger, the greater the Hours to Start must be.
8. After all entries have been made, select **SUBMIT**. The MIS will confirm your entries.

**Note:** You may also elect to **RESET** the entries, which is equivalent to an UNDO in Microsoft.

#### **Special Note**

You should be aware of two additional fields:

- **Last Changed By** – Shows the name of the User that last made a change to this data
- **Last Changed Date** – Shows the date and time when the last change was made

## 7.4. Generator, Aggregation and Ancillary Services Bids

There are two basic tasks associated with submitting and reviewing information associated with generator, Aggregation and ancillary services bids:

- Submit Generator Bids (Section [7.4.1](#))
- Change Generator Bids (Section [7.4.2](#))
- Users that are not authorized for any units will not see these menu options.

### ***Bids in the Day-Ahead Market for ICAP Suppliers***

Installed Capacity Suppliers, with few exceptions, are required to either “(i) schedule a Bilateral Transaction; (ii) Bid Energy in each hour of the Day-Ahead Market ...; or (iii) notify the ISO of any outages” [Services Tariff, §§ 5.12.7, 5.12.11 (available from the NYISO Web site at <https://www.nyiso.com/regulatory-viewer>); see also Sections 3 and 5 of the Outage Scheduling Manual and the Outage Scheduler User’s Guide (available from the NYISO Web site at <https://www.nyiso.com/manuals-tech-bulletins-user-guides>). As noted above, ICAP Suppliers are responsible for ensuring the completeness, accuracy, and timeliness of their Bids. The NYISO will not accept reliance on the replication feature discussed in this Guide as an excuse for an ICAP Supplier’s failure to meet its obligations in section 5.12.7 of the Services Tariff. See Services Tariff, § 5.12.12 (possible financial sanctions for failure to bid, schedule, or notify).]

As a way to assist ICAP Suppliers with meeting their bidding obligation and to provide data for the NYISO's commitment and scheduling software, the MIS, on a daily basis, replicates all DAM bids from the 10th day in the future into the 11th day. The MIS will not perform this replication if either there are no Bids in the MIS for the 10th day or there are pre-existing bids in the 11th day. This functionality does not apply to Aggregations and as such there will be no bid replication process for Aggregations.

For example, if today were August 1st, the MIS would copy Bids, if any, for August 11th (*i.e.*, 10 days in the future) and use that data to populate Bids for August 12th (*i.e.*, 11 days in the future) unless a Bid already existed for the 12th, in which case the MIS would not overwrite it.

Customers have complete control over the Bids until the 5:00 a.m. closing for the DAM to ensure that they have entered complete, accurate, and timely Bids. Customers should note that the replication feature described here may not occur due to either their own activity (*e.g.*, deleting Bids) or NYISO software deployments.

#### ***Generator and Aggregation Bid Modes***

Generators and Aggregations may bid in one of four modes:

- ISO-Committed Flexible
- ISO-Committed Fixed
- Self-Committed Flexible
- Self-Committed Fixed

Market Participants, except Responsible Interface Parties and Curtailment Service Providers, that seek to operate a Resource to meet an obligation outside of the wholesale markets, such as to meet a Transmission Owner's local needs or to perform testing, can Bid the Resource in two ways: (i) use of either the Self-Scheduled Fixed or Self-Schedule Flexible bidding mode (depending on the Transmission Owner need), or (ii) submission of a "price-taker" Bid. Barring bulk power system operational or reliability concerns, Resources using one of these methods will be evaluated by the NYISO consistent with its Bids.

Resources engaged in Dual Participation must bid in a manner, as described above, that allows them to be scheduled for any non-wholesale commitments. Dual Participation will allow the Market Participant to request a schedule (through its Bids) for a Resource as needed by the Transmission Owner for local reasons when the Resource may not have otherwise been scheduled by the NYISO. The Market Participant must account for any other wholesale market obligations it may have (for example, a Day-Ahead schedule) when submitting Bids to meet the non-wholesale market obligation(s).

An ESR that participates in a CSR, is not permitted to submit a Bid that would Self-Commit the ESR to inject or to withdraw a quantity of Energy that exceeds an applicable CSR Scheduling Limit. In addition,

when an ESR participates in a CSR with a Generator that submits a Minimum Generation Bid or is a Fixed Block Unit, the ESR is not permitted to submit a Bid that would self-commit the ESR to inject Energy such that the other Generator's Minimum Generation (or full output for a Fixed Block Unit), plus the ESR's self schedule, exceeds the CSR injection Scheduling Limit.

BTM:NG Resources may only bid in Self-Committed Flexible and Self-Committed Fixed mode.

For more details on Aggregation bid modes, please refer to the Aggregation Manual available from the NYISO web site at the following URL: <https://www.nyiso.com/manuals-tech-bulletins-user-guides>

Details regarding these modes may be found in Section 4 of the Services Tariff available from the NYISO Web site at the following URL:

<https://www.nyiso.com/regulatory-viewer>

Depending on the generator or Aggregation's bid mode, the generator or Aggregation may be evaluated for Energy only or Energy and Reserve. All generators and Aggregations using the ISO-Committed Flexible or Self-Committed Flexible bid modes in the Day-Ahead or Real-Time Markets may be scheduled to provide Energy, Reserves, or both. The maximum quantity of spinning reserve that may be obtained from a flexible unit is determined automatically by the NYISO as the product of the unit's emergency ramp rate and 10 minutes.

 **Special Note:** In addition to bid mode, authorization flags also play a role in determining which reserve products a unit is capable of providing. For further details, please see the section titled "Generator and Aggregation Authorization Flags," beginning on page [78](#).

The maximum quantity of non-synchronous reserve that may be obtained from a flexible unit is also determined automatically by the NYISO as its upper operating limit (UOL). Either normal or emergency upper operating limit (EUOL) may be used, depending on the situation. The real-time bid mode of a generator or Aggregation is determined, in part, by the bid mode used day-ahead. Figure 54 below details the real-time bid modes that are allowed.

**Figure 54: Allowed Real-Time Bid Modes**

| Day Ahead                      | Real Time              |                         |                      |
|--------------------------------|------------------------|-------------------------|----------------------|
|                                | ISO-Committed Flexible | Self-Committed Flexible | Self-Committed Fixed |
| <b>ISO-Committed Flexible</b>  | Yes                    | Yes                     | By exception only    |
| <b>Self-Committed Flexible</b> | No                     | Yes                     | By exception only    |
| <b>ISO-Committed Fixed</b>     | No                     | No                      | Yes                  |
| <b>Self-Committed Fixed</b>    | No                     | No                      | Yes                  |

|                       |     |     |     |
|-----------------------|-----|-----|-----|
| No Day-Ahead Schedule | Yes | Yes | Yes |
|-----------------------|-----|-----|-----|

**Note:** For information on bid modes and authorization flags for those units that have applied for and been approved as 15-minute generators, see Section 5 of the Transmission and Dispatching Operations Manual, available from the NYISO Web site at the following URL: <https://www.nyiso.com/manuals-tech-bulletins-user-guides>

**Figure 55: Allowed ESR Bid Modes**

| Dam Offer         |                        | Permitted RTM Offers |  |
|-------------------|------------------------|----------------------|--|
| Energy Level Mode | Unit Operation Mode    | Energy Level Mode    | Unit Operation Mode  |
| NYISO Managed     | ISO-Committed Flex     | NYISO Managed        | ISO-Committed Flex   |
|                   |                        | Self Managed         | Self-Committed Flex<br>Self-Committed Fixed*                       |
| Self Managed      | ISO-Committed Flex     | NYISO Managed        | ISO-Committed Flex   |
|                   |                        | Self Managed         | ISO-Committed Flex<br>Self-Committed Flex<br>Self-Committed Fixed* |
| Self Managed      | Self-Committed Flex    | Self Managed         | Self-Committed Flex<br>Self-Committed Fixed*                       |
| Self Managed      | ISO Committeed Fixed** | Self Managed         | Self Committed Fixed   |
| Self Managed      | Self-Committed Fixed   | Self Managed         | Self Committed Fixed   |
| No DAM offer      |                        | NYISO Managed        | ISO-Committed Flex   |
|                   |                        | Self Managed         | ISO-Committed Flex<br>Self-Committed Flex<br>Self-Committed Fixed  |

\* With approval from the NYISO

\*\* Units may only bid as ISO-Committed Fixed if qualified by the NYISO

#### 7.4.1. Submit New Generator Bids

##### *Introduction*

New bids for energy and for ancillary services are submitted through the same screens. We collectively refer to energy and ancillary services bids as Generator Bids throughout this section.

***Users should be aware that real-time bids are referred to as HAM bids on the Generator bid screens.***

The process for submitting DAM and real-time bids is the same; however, Market Participant Users may be separately authorized to submit DAM generator bids and real-time generator bids.

There are rules for new generator bids:

- Your day ahead generator bid must be submitted and have a status of “Validation Passed” by 5 A.M. on the day ahead of the bid date
- Your real-time bid must be submitted and have a status of “Validation Passed” at least 75 minutes ahead of the bid time
- Bid data is entered

**Note:** Although transaction bids can be entered at any time before the day-ahead and real-time markets close, generator and load bids can only be submitted up to 15 days in advance of the close of the DAM or the specified HAM.

### Prerequisites

Before beginning the task of submitting day-ahead or real-time market energy bids, you should be aware of the following preconditions:

- Certain authorizations must be present:

The Market Participant User must have “DAM Units” and/or “HAM Units”(real-time) authorization flag assigned

The unit must be qualified to bid in the energy, regulation, and/or reserve market

- Generator Commitment parameters, which define the non-time varying data associated with generators, must be properly defined.

The procedure for submitting new generator bids follows.

### >To Submit New Generator Bids

1. Log in to your User account as outlined in the corresponding procedure on page [102](#).
2. From the User menu frame, choose **New Generator Bid**. The Generator Bid display is presented, as illustrated in Figure 56 following. For ease of presentation, the display is broken down into three sections as shown in steps 3–5. In reality, it is one display.

**Figure 56: Generator and Market Specification Data display**

| Generator Bid  |  |
|--|--|
| Generator Name: <input type="button" value="None Selected"/>               | ESR Beginning Energy Level (MWh)               |
| Bid Date<br><input type="text" value=" "/> (mm/dd/yyyy hh:mm)              | Num of Hours<br><input type="text" value="1"/> |
| Fuel Type<br><input type="button" value="None Selected"/>                  | Market<br><input type="button" value="BOTH"/>  |
| Burdened Fuel Price (\$/mmbtu)   |  |
| Expiration (DAM Only)<br><input type="text" value=" "/> (mm/dd/yyyy hh:mm) |  |

3. Enter the following generator or Aggregation and market specification data:

- a. **Generator Name** – Select the name of the generator or Aggregation for which you want to submit a bid:

- The pull-down menu lists the generators and Aggregations for which you are authorized to enter bids.
  - If you do not select a Generator or Aggregation name, your bid will not pass the validation check and an error will be returned.
- b. **ESR Beginning Energy Level (DAM ONLY) (in MWh)** – This is the energy level that will be evaluated for an ESR for a Day-Ahead Market day.
- Beginning Energy Level is the ratio of the amount of Energy stored to the amount of Energy that could be stored at the beginning of the Day-Ahead Market Day.
  - The submitted Beginning Energy Level must be equal to or greater than the Lower Storage level and must be Less than or equal to the Upper Storage level.
- c. **Fuel Type** (Optional, DAM & HAM) – Enter revised Fuel Type. This represents the new fuel type that will be used by the unit for this bid.
- If a unit wants to bid greater than \$1000.00/MW for Minimum Generation or for any portion of the Incremental Energy Bid, then it must enter a Fuel Type and/or Burdened Fuel price depending on the type of unit. A Non-Fuel Indexed unit can only provide Fuel Type.

**Note:** For DAM bids, at around 10pm, Fuel Type information will be validated and assigned a bid warning message if the Fuel Type fails the fuel threshold test. This gives an opportunity to the MP to modify their DAM Fuel information if they so desire. If no Fuel Type is entered, the NYISO will evaluate the bid against the Reference Level for the generator based on its primary Fuel Type.

At each market close, the Reference Level Software (RLS) application will validate that the submitted Fuel Types are valid for the given generator and will use the information to adjust Reference Levels, subject to RLS rules. For more information on RLS rules, refer to the Reference Level Software User's Guide, Appendix B (available from the User Guides folder on the NYISO Web site at

[http://www.nyiso.com/public/markets\\_operations/documents/manuals\\_guides/index.jsp](http://www.nyiso.com/public/markets_operations/documents/manuals_guides/index.jsp)).

Generator-specific lists of approved Fuel Type IDs and the corresponding Fuel Type descriptions can be found within the RLS application. Increased bids will be evaluated regardless of whether Reference Levels are updated. If Reference Levels are not updated, existing Reference Levels will be used to evaluate the revised bids during market close.

Incremental Energy and Minimum Generation bids will be capped as per the following rules based on the submitted fuel information and the bid.

If a unit's bid is >\$2000 and the reference is also >\$2000, then the bid used for market evaluation will be \$2000.

If a unit's bid is >\$1000 and the reference level is >\$1000, then the bid that is evaluated will be the lesser of the bid or the reference level, but not greater than \$2000.

If a unit's bid is >\$1000 but <=\$2000, the and the reference level is <=1000, then the bid that will be evaluated (and possibly mitigated) will be \$1000.

d. **Burdened Fuel Price** (Optional, DAM and HAM) – Enter revised Burdened Fuel Price in \$/mmBtu for this bid. This represents the Generator's in-day per unit cost of fuel, including raw fuel price, taxes, and the adder as defined in the *Reference Level Software User's Guide* (accessible from the *User Guides* folder at the following location on the NYISO Web site: <https://www.nyiso.com/manuals-tech-bulletins-user-guides>).

- Burdened Fuel Price must be a numeric value greater than or equal to zero, or null.
- Maximum value for Burdened Fuel Price is \$99.9999.
- If the Burdened Fuel Price data does not pass the above validation checks, the bid will not pass the validation check, and an error will be returned.
- If a unit wants to bid greater than \$1000.00/MW for their Minimum Generation or Energy Bid Curve, then it must enter a Fuel Type and/or Burdened Fuel price depending on the type of unit. A Non-Fuel Indexed unit can only provide Fuel Type.

**Note:** For DAM bids, at around 10pm, Fuel Price information will be validated and assigned a bid warning message if the Fuel Price fails the fuel threshold test. This gives an opportunity to the MP to modify their DAM Fuel information if they so desire. If no Fuel Price is entered, the NYISO will evaluate the bid against the Reference Level for the generator based on its primary Fuel Price and Type.

At each market close, the Reference Level Software (RLS) application will validate that the submitted Fuel Price are valid for the given generator and will use the information to adjust Reference Levels, subject to RLS rules. For more information on RLS rules, refer to the Reference Level Software User's Guide, Appendix B (available from the User Guides folder on the NYISO Web site at [http://www.nyiso.com/public/markets\\_operations/documents/manuals\\_guides/index.jsp](http://www.nyiso.com/public/markets_operations/documents/manuals_guides/index.jsp)). Generator-specific lists of approved Fuel Type ID and the corresponding Fuel Type descriptions can be found within the RLS application. Increased bids will be evaluated regardless of whether Reference Levels are updated. If Reference Levels are not updated, existing Reference Levels will be used to evaluate the revised bids during market close.

Incremental Energy and Minimum Generation bids will be capped as per the following rules based on the submitted fuel information and the bid.

If a unit's bid is >\$2000 and the reference is also >\$2000, then the bid used for market evaluation will be \$2000.

If a unit's bid is >\$1000 and the reference level is >\$1000, then the bid that is evaluated will be the lesser of the bid or the reference level, but not greater than \$2000.

If a unit's bid is >\$1000 but <=\$2000, the and the reference level is <=1000, then the bid that will be evaluated (and possibly mitigated) will be \$1000.

- e. **Bid Date** – Enter the date and the starting hour for this bid. This represents the effective date of the bid:
- The format used should be mm/dd/yyyy hh:mm (where hh stands for hour using the 24-hour clock).
  - If you do not enter a date and hour, the bid will not pass the validation check and an error will be returned.
  - If you enter a date that has already passed, an error will be returned.

**Note:** Although transaction bids can be entered at any time before the day-ahead and real-time markets close, generator and load bids can only be submitted up to 15 days in advance of the close of the DAM or the specified HAM.

**Opportunity Cost** - All Generators may submit an Opportunity Cost that is used to develop the Generator's reference levels. A Generator's Opportunity Cost may be static or may vary with the \$/MWh Incremental Energy Bid curve. Opportunity costs cannot, at any point, be decremental. The opportunity cost(s) submitted should be the total opportunity cost for the Generator. The submitted value will override all opportunity costs previously included in reference levels for the submitted hour. A Market Participant that submits opportunity costs that it is not able to justify may be subject to a financial sanction in accordance with Section 23.4.3 of the NYISO's Market Mitigation Measures.

- f. **Number of Hours** – Enter the number of hours that defines the span of time, starting from bid date and starting hour, for which the bid pertains:
- You can enter any number of hours from 1 to 360 (default = 1).
  - If you do not enter any number, your bid will not pass the validation check and an error will be returned.
- g. **Market** – Select one of the following choices from the pull-down menu to define the market(s) that you are bidding into:
- **DAM** (Day-Ahead Market)
  - **HAM** (Real-Time Market)
  - **BOTH** (both DAM and HAM)

**Note:** The default is **BOTH**.

- h. **Expiration (DAM Only)** – Enter a date/time to indicate the last possible time the NYISO will consider the bid for possible supplemental resource evaluation (SRE).

The bid expiration date/time is significant because the NYISO has the ability to commit a resource based on a rejected bid that has not yet expired. This commitment process is called the Supplemental Resource Evaluation (SRE), and it provides the NYISO with a mechanism for committing resources for timeframes that are not covered by the Day -Ahead and Real-Time evaluations.

Supplemental resource commitments may be required at any point after the day-ahead unit commitment process has completed. The need would most generally arise due to the unexpected withdrawal of a unit from service or to an unexpected change in either the load or the transmission topology. In the event that a supplemental resource commitment is required, bids that have not reached expiration time will be considered available for evaluation and may be committed.

Normally, the expiration date and time would be between the DAM close time and the last 75 minutes of the bid date, if the unit were bid for the whole day.

**Example:** A bidder submits an energy bid into the DAM and no energy is scheduled. The bidder did not pay attention to the expiration date field, and left the field blank. By default, the bid status will be “unaccepted” and “unexpired.” The bidder, thinking that the resource is now available, commits the generation resource to another market. The NYISO then conducts a SRE, which in turn commits the resource. As a result, the bidder has unwittingly committed their resource in two different markets.

- The field is optional for the DAM. Bids without an expiration entered do not expire and will be considered as available for a SRE run.
- The format used should be mm/dd/yyyy hh:mm (where hh stands for hour using the 24-hour clock - starting with 00)
- Normally the expiration time would fall somewhere between the close of the DAM (0500 hours) and the last 75 minutes of the bid date and hour (22:45 hours).

**Figure 57: Energy Bid and Bid Curve Data**

4. Enter the following energy bid and bid curve data (see Figure 57):

- Co-Located Storage Resource (CSR) Injection Limit** – Enter the maximum amount of Energy the CSR is physically capable of Injecting. (*The Bids submitted for the IPR Unit and the ESR Unit must supply the same values for the Injection and Withdrawal Limits.*)
- Co-Located Storage Resource (CSR) Withdrawal Limit** – Enter the maximum amount of Energy the CSR is physically capable of withdrawing. (*The Bids submitted for the IPR Unit and the ESR Unit must supply the same values for the Injection and Withdrawal Limits.*)
- Co-Located Storage Resource (CSR) POI Outage Type (ONLY FOR DAM)** - When submitting DAM Bid, the user must specify a “CSR POI Outage Type” only of “N” Normal, “P” for Planned Outage and “F” for Forced Outage.
  - A CSR POI Outage must be reported through the bidding platform
  - The Bids submitted for the IPR Unit and the ESR Unit must supply the same value for CSR POI Outage Type.
  - DAM Bids for a CSR shall specify “N” when there is no outage to report.
  - A POI outage is Planned only if the outage is scheduled to begin more than 48 hours from the market day.
  - A Forced POI outage is an outage scheduled to begin in less than 48 hours
- Lower Storage Limit** - Enter the minimum amount of Energy the ESR is physically capable of storing.
- Upper Storage Limit** – Enter the maximum amount of Energy the ESR is physically capable of storing.

e. **ESR Energy Management Mode** - Select whether the ESR will have its Energy Level be ISO-Managed or Self-Managed. Self-Managed will appear as default on the bidding screen. For the upload/download it is a required selection.

- **ISO Managed** – Energy level will be included in the market optimization.
  - NYISO market optimization will use Beginning Energy Level, and Lower and Upper Storage limits to ensure that ESRs receive physically feasible schedules in the DAM and RTM.
- **Self-Managed** – Energy level will not be used in the market optimization.
  - Beginning Energy Level, and Lower and Upper Storage Limits will not be considered in the market optimization.

**Note:** User can change Energy Level Management Mode in Real-Time Market and within hours of Real-Time Market. For the upload/download functionality it is a required selection. Bids that do not indicate whether the ESR should be Self or ISO Managed will fail validation.

f. **Lower Operating Limit (ONLY FOR ESR)** - Enter the minimum MW level at which the ESR is willing to operate.

- The value can be negative.

g. **Emergency Upper Operating Limit** – Enter the emergency upper operating limit for the unit.

- This value indicates the upper operating limit of the unit under emergency conditions.
- This value must greater than or equal to the upper operating limit of the unit.
- For BTM: NG Resources, this value may not exceed the Resource's Injection Limit (the MW amount the Resource is permitted to inject into the distribution or transmission system by its Interconnection Agreement), and may include a MW value achievable through reductions in the Host Load.
- If you do not enter any number or a number less than the Upper Operating Limit, your bid will not pass the validation check and an error will be returned.

h. **Upper Operating Limit** – Enter the uppermost limit of normal operation for the unit:

- This value indicates the maximum net schedule.
- This value may not exceed the Maximum Operating Limit specified for the unit (see Section [6.2.3](#)).

- If you do not enter a number or enter a number greater than the maximum limit shown on the Generator Limits display, your bid will not pass the validation check and an error will be returned.
- For BTM:NG Resources, the upper operating limit is the lower of the Winter Operating Limit/Summer Operating Limit minus the Host Load of the Resource or the Injection Limit (the MW amount the Resource is permitted to inject into the distribution or transmission system by its Interconnection Agreement).
  - i. **Host Load** – BTM:NG Resources only enter the Host Load value in MWs
    - The value indicates the forecasted load served by BTM:NG Resource for the bid segment. If the BTM:NG Resource is not participating in the NYISO Station Power Program, the Host Load value should include the facility's station load.
    - This value may not be increased on HAM bids for any hours in which such an increase would render the DAM schedule infeasible.
  - j. **Self-Schedule MW** – Enter the desired schedule, in MWs, for each 15-minute increment for the hour. 15-minute schedules may only be entered in the real-time market.
    - If values are entered in the Self Scheduled MW fields, the appropriate choice must be made under the unit operations section. (Applies only to Self-Committed Fixed and Self-Committed Flexible Unit Status.)
    - All 15-minute increments must have a value and the changes between increments should not violate the unit's ramp constraint.

#### **Special Notes**

When evaluating units for the bid upper limit, the MIS will use the **Lower** of the Bid Upper Limit field or the last field of points (MW, \$/MW) on the bid curve, i.e. the unit bids 90 MW in the Upper Operating Limit field and the last point on their bid curve is 85 MW and \$30.00/MW. The MIS would interpret this to mean that you are only bidding 85 MWs as the upper limit of your unit. However, units may be scheduled up to the Emergency UOL under certain conditions—the NYISO will notify market participants when Emergency UOLs have been used in market evaluations.

The NYISO allows generators and Aggregations to operate above their ICAP DMNC and to bid that energy into the DAM and Real-Time Markets. The amount of generation that can be bid is limited to the Proven Maximum Production Capability.

#### ***BTM:NG Operating Point, Upper Operating Limit and Host Load***

The Bid evaluation will be performed for Energy (and Ancillary Services) offers that correspond to production that exceeds the Resource's Host Load.

The Self-Schedule MWs for BTM:NG Resources should reflect the net of the MWs above the Host Load, i.e. if the unit bids 100 MW Emergency Upper Operating Limit with a 30MWs Host

Load, and the unit wants to self-schedule starting from 10MWs, the self-schedule MWs should commence from 10MWs and not 40MWs.

### **Bidding Above ICAP DMNC**

Proven Maximum Production Capability is defined as the maximum production demonstrated during the appropriate contiguous period (per the *NYISO Installed Capacity Manual*, available from the NYISO Web site at the following URL: <https://www.nyiso.com/manuals-tech-bulletins-user-guides>), or during the current capability period, or during either of the prior two capability periods. For hydroelectric units, the Proven Maximum Production Capability may also be based on other historical production data that is deemed acceptable by the NYISO.

For its initial Proven Maximum Production Capability, a newly commissioned generator may use its nameplate capacity for the first summer and first winter Capability Periods.

ICAP DMNC is a generator's or Aggregation's Proven Maximum Production Capability that has been weather or streamflow adjusted during the appropriate contiguous period. This adjustment results in significant deratings for combined cycle and hydroelectric plants.

To change the Proven Maximum Production Capability, documentation of production test data must be submitted to the NYISO ICAP Market Operations Department by email or regular mail. The ICAP Market Operations Department can be reached as follows:

**Email:** [generator\\_test\\_data@nyiso.com](mailto:generator_test_data@nyiso.com)

### **Manager, ICAP Market Operations**

The NYISO will conduct a review of the documentation prior to changing the Proven Maximum Production Capability. If appropriate documentation is submitted as described above, the value will normally be updated within five business days of NYISO's receipt of the documentation. A customer representative from NYISO Stakeholder Services will confirm the change via e-mail or telephone.

k. **Minimum Generation (MW)** – Enter the minimum amount of generation that must be run should the bid be accepted:

- This value may not be less than Physical Min Gen MW of the unit (see Section [7.2.4](#)).
- If you do not enter any number, your bid will not pass the validation check and an error will be returned.
- BTM:NG Resources, ESRs, and Aggregations do not enter Minimum Generation (MW)
- This value may not be changed on HAM bids for any hours for which the generator received a DAM schedule.

### **Special Notes**

If a unit bids the minimum limit and upper limit at the same value, then the unit is considered a fixed unit and cannot submit a bid curve. If the unit has a bid curve provided and is a flexible unit, then the minimum and upper limits **MUST** be a different value. The SCUC program cannot model a unit with a bid curve and equal minimum and upper operating points.

The following examples show how SCUC will interpret some conditions:

**A)**

| Min. Gen. | Upper Limit | Bid Curve | OP. Reserve | Regulation |
|-----------|-------------|-----------|-------------|------------|
| 150       | 150         | No        | 0           | 0          |

**Result:** This is a valid bid; unit is a fixed energy unit since no bid curve is supplied so is considered a fixed unit; It would be dispatched at either 150 or zero megawatts depending on startup/minimum generation costs and need.

B)

| Min. Gen. | Upper Limit | Bid Curve | OP. Reserve | Regulation |
|-----------|-------------|-----------|-------------|------------|
| 100       | 200         | No        | 50          | 25         |

**Result:** This is a valid bid; unit is a fixed energy unit since no bid curve is supplied so is considered fixed; if full operating reserve, full regulation and energy is awarded then the unit would be scheduled at 100 MW energy, 50 MW Op. Reserve, and 50 MW Regulation (25MW in both direction) which satisfies the 200 MW upper operating limit.

C)

| Min. Gen. | Upper Limit | Bid Curve | OP. Reserve | Regulation |
|-----------|-------------|-----------|-------------|------------|
| 100       | 200         | Yes       | 200         | 200        |

**Result:** This is a valid bid; unit is a dispatchable unit since a bid curve is supplied and is considered flexible; SCUC awarded the unit schedules that fit in its operating range which might be 120 MW energy, 40 MW Op. Reserve, and 40 MW Regulation (20MW in both direction) which satisfies the 200 MW upper operating limit.

D)

| Min. Gen. | Upper Limit | Bid Curve | OP. Reserve | Regulation |
|-----------|-------------|-----------|-------------|------------|
| 200       | 200         | Yes       | 200         | 200        |

**Result:** This is an invalid bid since a curve is provided and Min and Upper limits are the same.

- I. **Minimum Generation Cost (\$)** – Enter the cost for the minimum generation segment.

The NYISO MIS recognizes a generator's bid at minimum generation level (\$/hour) as the generator's total cost for supplying service at that level:

- The number you enter in dollars and cents may include a decimal point and up to two decimal digits.
- If you do not enter any number, your bid will not pass the validation check.
- The value you place in this field represents the bid for (1) one hour of operation at your bid Minimum Generation MWs field.
- The generator minimum cost per hour that is entered into the MIS should reflect the total cost of running the generator at its minimum operating point, and not the incremental cost above the generator's bid. This cost will be compared to the revenue that the generator would receive from the energy and Ancillary Services markets. Generators who underestimate their minimum generation costs by not including all fuel, O&M, and other expense may not recover expenses. Mingen costs may be specified on an hourly basis
- This value may not be increased on HAM bids for any hours for which the generator received a DAM schedule.
- BTM: NG Resources, ESRs, and Aggregations do not enter Minimum Generation Cost (\$)

- m. **Start-up Cost** – Specify how much of a start up cost the bidder would like to have considered in the evaluation process. If the bidder would prefer that no start up cost be included then a zero dollar value may be entered.
- This value may not be increased on HAM bids for any hours for which the generator received a DAM schedule.
  - BTM:NG Resources, ESRs, and Aggregations do not enter a Start-up Cost
  - Any unit that is operating as an ISP or that has an RMR Contract with the NYISO must submit a Start-up cost Bid. Generators that are operating as ISPs, or under an RMR Agreement must offer in accordance with the RMR Generator and Interim Service Provider Energy and Ancillary Service Market Participation Rules. See Section 23.7 of the Services Tariff.

 **Special Note:** If you have values in both the *Startup Bid Field* and the *Startup Cost Curve* fields, the value in the *Startup Bid Field* will be used for evaluation.

 **Special Note:** MWs and \$/MW, as outlined immediately below, refer to the entry of individual MWs and associated cost.

- a. **MW** – Enter the bid in MW:
  - Failure to enter a curve will result in evaluation of the unit operating at the minimum generation point and will ignore any data entered for the bid curve.
  - The MWs must cover the full operating range of the unit, up to the Emergency Upper Operating Limit.
- b. **\$/MW** – Enter the \$/MW for the associated MWs:
  - The number you enter for \$/MW in dollars and cents may include a decimal point and up to two decimal digits.
  - Up to eleven pairs of MW and \$/MW entries may be made.
  - The bid cost must cover the full operating range of the unit, up to the Emergency Upper Operating Limit.
- c. **Unit Operations** – Select the type of unit operation:
  - If you select:
    - **ISO Committed Flexible** – The NYISO will dispatch the unit based on the economic evaluation methodology, and the unit will receive changing base points consistent with system conditions and its bid.

- ***Self Committed Flexible*** – The NYISO will dispatch the unit to the level indicated in its bid, subject to system security,, and will receive changing base points consistent with system conditions and its bid for the capacity above the self-committed schedule.
- ***Self-Committed Fixed*** – The NYISO will dispatch the unit to the level indicated in the bid, subject to system security.
- ***NYISO Committed Fixed*** – The NYISO will dispatch the unit based on the economic evaluation methodology and its schedule will not change over the hour.
- If you do not make a selection, your bid will not pass the validation check and an error will be returned.

 **Special Note:** For further information on the bidding implications of the various generator and Aggregation bid modes, please refer to the section titled "Generator and Aggregation Bid Modes," beginning on page [118](#). See Figure 54 for Allowed Real-Time Bid Modes and Figure 55 for Allowed ESR Bid Modes.

**Figure 58: Ancillary Services Data**

| Ancillary Services                 |  | MW\$ | \$/MW |
|------------------------------------|--|------|-------|
| Item                               |  |      |       |
| 10 Minute Spinning Reserves        |  |      |       |
| 10 Minute Non-Synchronized Reserve |  |      |       |
| 30 Minute Spinning Reserve         |  |      |       |
| 30 Minute Non-Synchronized Reserve |  |      | 0.00  |
| Regulation Capacity                |  | ■    |       |
| Regulation Movement                |  |      |       |

**SUBMIT** **RESET**

| Schedule<br>(Only applicable after DAM/HAM posting) |  | Bid Status                      | Market Selected |
|---|--|---------------------------------|-----------------|
| Generator Name<br>59TH STREET_GT_1                  |  | BID STATUS<br>VALIDATION PASSED | DAM             |

| Scheduled MWs<br>(Based on Unit, Date and Market Displayed) |        |             |                  |             |                  |                     |                       |
|---|--------|-------------|------------------|-------------|------------------|---------------------|-----------------------|
| Bid Date  | Energy | 10 Min Spin | 10 Min Non-Synch | 30 Min Spin | 30 Min Non-Synch | Regulation Capacity | Operating Cap Reserve |
|   |        |             |                  |             |                  |                     |                       |

| Status Messages |  |
|-----------------|--|
|                 |  |

- Enter the following Ancillary Services Data (see Figure 58):

**MW** – Enter the number of MWs that you want to bid for Regulation Capacity. For BTM:NG Resources, enter the value based on the MWs the unit can provide above the Host Load.

**Note:** There is no MW bid for Reserves or for Regulation Movement.

For Regulation Capacity MWs, the value indicates the ability to move both up and down by the total MWs bid. For example, a bid of 5 MWs is a bid to provide 5 MWs of

regulation up and 5 MWs of regulation down. This is 5 Minutes times your Regulation Capacity Response Rate.

- **\$/MW** – Units bidding flexible must enter an availability bid for appropriate reserve categories; otherwise, the bid in the DAM will result in failed validation. For BTM:NG Resources, enter the **\$/MW** value based on the MWs the unit can provide above the Host Load.

Enter bids for both Regulation Capacity and Regulation Movement if you want to participate in the Regulation Service market.

A value must be entered in the **\$/MW** field. If the field is left blank, the bid will fail the validation process. The value may be \$0.

The number you enter for **\$/MW** in dollars and cents may include a decimal point and up to two decimal digits.

**Note:** Units bidding flexible will automatically be considered for reserves and the scheduling process will best evaluate the amount of reserves from the unit.

6. After all your entries have been made, select **SUBMIT** and the MIS will check your entries to see if they pass a validation test.

**Note:** You may also elect to **RESET** the entries, which is equivalent to an UNDO in Microsoft.

Check the results of the validation process that are presented in the Generator Bid Results display, illustrated in Figure 59, following.

**Figure 59: Generator Bid Results display**

**Generator Bid Results**

| Bid Identification   |        |           |                   | Schedules (MW) |        |             |                  |             |                  |                     |                |
|----------------------|--------|-----------|-------------------|----------------|--------|-------------|------------------|-------------|------------------|---------------------|----------------|
| Date                 | Market | Generator | Status            | Time           | Energy | 10 Min Spin | 10 Min Non-Synch | 30 Min Spin | 30 Min Non-Synch | Regulation Capacity | Op Cap Reserve |
| 10/15/2008 02:00 EDT | DAM    |           | VALIDATION PASSED |                |        |             |                  |             |                  |                     |                |
| 10/15/2008 05:00 EDT | DAM    |           | VALIDATION PASSED |                |        |             |                  |             |                  |                     |                |
| 10/15/2008 05:00 EDT | DAM    |           | BID ACCEPTED      | 05:00          | 44.0   |             |                  |             |                  | 0.0                 |                |
| 10/15/2008 07:00 EDT | DAM    |           | VALIDATION PASSED |                |        |             |                  |             |                  |                     |                |
| 10/15/2008 08:00 EDT | DAM    |           | VALIDATION PASSED |                |        |             |                  |             |                  |                     |                |

- The MIS will return to you in the display/results frame page, a record of the bid data you have entered.

**\*\*\**(only the HAM hours for status "bid accepted" will display  
in 15-minute blocks)\*\*\****

- A separate record is provided for each hour for the respective markets each hour will be broken down into 15-minute blocks. This means that if you entered a bid for 24 hours, you will get a separate record for each hour in the 24-hour period for each market.
- An immediate indication of VALIDATION PASSED or VALIDATION FAILED will appear in the Status column. If a bid constraint is violated, or a validation error is discovered, a software error message will be generated.
- The User can click on the Bid Status (displayed as a hyperlink) to display a window containing associated validation and/or constraint messages, if any. See "Reasons to Review Generator Bids," beginning on page [141](#), for more information.
- There are additional results presented on display E-5 that are not explained here. They will be covered in Section [7.4.2](#).

 **Special Note**

While you should check all data to make sure it represents the data you intended to enter, you need to check the Status Column to see if your bid passed validation:

- If the Status is, **VALIDATION PASSED**, then your bid has passed the screening to determine if all required data has been entered
- If the Status is, **VALIDATION FAILED**, then your bid has either incorrect or missing data and you should go back to the Generator Bid (E-7) display and correct your error. Remember, units bidding flexible must enter availability bids for appropriate reserve categories.

After the DAM/HAM closing and posting, the accepted generator bid information is available at the bottom of the Generator Bid display (Schedule section), as illustrated in Figure 60, following.

**Figure 60: Generator Bid display**

**New York ISO**  
Independent System Operator

Welcome to the Scheduling and Bidding System

[Logout](#)

**COMPANY** **MARKET DATA** **DOCUMENTS** **COMMITTEES**

[Administrator Details](#) - [Change Password](#) - [Confirm Transaction Bids](#) - [Generator Commitment Parameters](#) - [Generator Details](#) - [Generator OOM](#) - [Joint Energy Scheduling System](#) - [LSE Details](#) - [Load Bus Details](#) - [Log Out](#) - [New Generator Bid](#) - [New Transaction](#) - [Organization Details](#) - [Review Generator Bids](#) - [Review Generator Forecasted Schedules](#) - [Review Transaction Bids](#) - [Review Transaction Contracts](#) - [Trading Hub Summary](#) - [User Details](#) -

[Page Ref. E](#)

### Generator Bid

|  |  |   |   |
|--|--|---|---|
| Generator Name: <input type="button" value="None Selected"/>   | ESR Beginning Energy Level (MWh)                 | Fuel Type<br><input type="button" value="None Selected"/> | Burdened Fuel Price (\$/mmbtu)<br><input type="button" value=""/>           |
| Bid Date<br><input )="" type="text" value="mm/dd/yyyy hh:mm"/> | Num of Hours<br><input type="button" value="1"/> | Market<br><input type="button" value="BOTH"/>             | Expiration (DAM Only)<br><input )="" type="text" value="mm/dd/yyyy hh:mm"/> |

### Energy Bid

|  |  |  |   |
|--|--|--|---|
| CSR Injection Limit (MW)<br><input type="button" value=""/>  | CSR Withdrawal Limit (MW)<br><input type="button" value=""/>   | CSR Outage Type<br><input type="button" value="None Selected"/>  |   |
| Lower Storage Limit (MWh)<br><input type="button" value=""/>   | Upper Storage Limit (MWh)<br><input type="radio" value="ISO"/> ISO<br><input type="radio" value="Self"/> Self  | ESR Energy Management Mode<br><input type="radio" value="Self"/> Self<br><input type="radio" value="ISO"/> ISO | Lower Operating Limit (MW)<br><input type="button" value=""/>   |
| Upper Operating Limit (MW)<br><input type="button" value=""/>  | Emergency Upper Operating Limit (MW)<br><input type="button" value=""/>  | Minimum Generation (MW)<br><input type="button" value=""/>   | Minimum Generation Cost (\$)<br><input type="button" value=""/> |
| Self Scheduled MW<br><input type="button" value="00 Minute MW"/> <input type="button" value="15 Minute MW"/> <input type="button" value="30 Minute MW"/> <input type="button" value="45 Minute MW"/> | Unit Operations<br><input checked="" type="radio" value="ISO Committed Flex"/> ISO Committed Flex<br><input type="radio" value="Self Committed Fixed"/> Self Committed Fixed | Host Load (MW)<br><input type="button" value=""/>  | Start-Up Cost (\$)<br><input type="button" value=""/>           |

### Bid Curve (Block Format)

|  |                                 |                                 |                                 |                                 |                                 |                                 |                                 |                                 |                                 |                                 |                                 |
|--|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| MW<br>(Barpoint)<br><input type="button" value=""/>            | <input type="button" value=""/> | <input type="button" value=""/> | <input type="button" value=""/> | <input type="button" value=""/> | <input type="button" value=""/> | <input type="button" value=""/> | <input type="button" value=""/> | <input type="button" value=""/> | <input type="button" value=""/> | <input type="button" value=""/> | <input type="button" value=""/> |
| \$/MW<br>(Opportunity Cost)<br><input type="button" value=""/> | <input type="button" value=""/> |

### Auxiliary Services

| Item                               | MWs                             | \$/MW                           |
|------------------------------------|---------------------------------|---------------------------------|
| 10 Minute Spinning Reserves        | <input type="button" value=""/> | <input type="button" value=""/> |
| 10 Minute Non-Synchronized Reserve | <input type="button" value=""/> | <input type="button" value=""/> |
| 30 Minute Spinning Reserve         | <input type="button" value=""/> | <input type="button" value=""/> |
| 30 Minute Non-Synchronized Reserve | <input type="button" value=""/> | <input type="button" value=""/> |
| Regulation Capacity                | <input type="button" value=""/> | <input type="button" value=""/> |
| Regulation Movement                | <input type="button" value=""/> | <input type="button" value=""/> |

Data in the schedule section is filled in only after DAM/HAM posting to indicate what the MIS expects the generator or Aggregation to produce for that hour. The status messages at the very bottom of the Generator Bid display, however, will be visible immediately after the generator bid is processed.

**Special Note:** For information on 15-minute scheduling of internal generation, refer to Section 5 of the Transmission and Dispatching Operations Manual, available from the NYISO Web site at the following URL: <https://www.nyiso.com/manuals-tech-bulletins-user-guides>

#### **7.4.2. Review/Change Generator Bids**

## ***Introduction***

Bids for energy and bids for ancillary services are changed through the same displays discussed in Section [7.4.1](#). Energy and ancillary services bids are collectively referred to as *Generator Bids* throughout this section.

The process for submitting DAM and Real-Time (HAM) bid changes is the same; however, Market Participant Users may be separately authorized to submit DAM generator bids and Real-Time (HAM) generator bids.

The capability to change a previously submitted bid depends on the current date and time relative to the particular market you are submitting the bid:

- Your day-ahead generator bid changes must be completed and have a status of “Validation Passed” by 5 AM of the day ahead of the bid date
- Your real-time generator bid changes must be submitted and have a status of “Validation Passed” 75 minutes ahead of the bid time
- Bids may be submitted up to 15 days in advance of the close of the DAM or the specified HAM.

### ***Prerequisites***

Before beginning the task of changing day-ahead or real-time market energy bids, you should be aware of the following preconditions:

- Certain authorizations must be present:

The Market Participant User must have “DAM Units” and/or “HAM Units” authorization flags assigned. The unit must be qualified to bid in the energy, regulation, or reserve markets

- Generator Commitment parameters, which define the non-time varying data associated with generators, must be properly defined.

The procedure for reviewing/changing generator bids follows.



### ***To Review/Change Generator Bids***

1. Log in to your User account as outlined in the corresponding procedure on page [102](#).
2. From the User menu frame, choose **Review Generator Bids**. The Generator Bid Selection Criteria display is presented in the display/results frame, as illustrated in
3. Figure 61, following. Using this display, you will be able to search for generator bids that meet specific criteria.

**Figure 61: Generator Bid Selection Criteria display**

Page Ref. E-4

**Generator Bid Selection Criteria**

Generator Name:

Market:  BOTH  DAM  HAM

Start Time:  (mm/dd/yyyy hh:mi)

Stop Time:  (mm/dd/yyyy hh:mi)

Bid Status:

Number of Rows:

Display Advisory Schedules

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4. Enter the following selection criteria data:

- a. **Generator Name** – Select the name of the generator or Aggregation for which you want to review bid information data.
  - The pull-down menu lists the generators and Aggregations for which you are authorized to change bid data.
  - Select the generator or Aggregation from the pull down menu. Only one generator may be selected for a given search.
  - By selecting the *None Selected* option, you are telling the search program that the generator name does not matter in the search criteria. However, only the generators that you are authorized to change will be returned when the search criteria is submitted
- b. **Market** – You must select one of the following choices to define that markets that you want to review generator bids:
  - **DAM** (Day-Ahead Market)
  - **HAM** (Real-Time Market)
  - **BOTH** (both DAM and HAM)

**Note:** The default is *BOTH*.

- c. **Start Date** – Enter the start date for the bid(s) you desire:
  - The format is mm/dd/yyyy hh:mm (where hh stands for hour using the 24-hour clock).

- If you do not enter a Start Date, you are telling the search program that Start Date and hour does not matter in the search criteria.
- d. **End Date** – Enter the end date for the bid(s) you desire:
- The format is mm/dd/yyyy hh:mm (where hh stands for hour using the 24-hour clock).
  - If you do not enter an End Date, you are telling the search program that the End Date and hour do not matter in the search criteria.
- e. **Bid Status** – Select from the pull-down menu one of the following statuses for the bids you want to retrieve (see explanation in "Reasons to Review Generator Bids," beginning on page [141](#)):
- **VALIDATION PASSED**
  - **VALIDATION FAILED**
  - **EVALUATING**
  - **BID ACCEPTED**
  - **BID REJECTED**

If you select "None Selected" the search program will not use this component in the search criteria.

- f. **Number of Rows** – Enter the maximum number of "hits" to be returned that meet your search criteria.

**Note:** If nothing is specified, a maximum default is used and up to 500 rows could be returned.

- g. **Display Advisory Schedules** – Allows a Market Participant to indicate whether they would like to see their advisory schedules.
5. After all the desired entries have been made, select **DISPLAY**, and the MIS will submit your search request and return a list of all bid records that meet the search criteria.

**Note:** You may also elect to **RESET** the entries, which is equivalent to an UNDO in Microsoft.

6. Check the results of the search criteria that are presented in the Generator Bid Results display (illustrated in Figure 62):

**Figure 62: Generator Bid Results display**

| Bid Identification   |        |           |                   | Schedules (MW) |        |             |                  |             |                  |                     |                |
|----------------------|--------|-----------|-------------------|----------------|--------|-------------|------------------|-------------|------------------|---------------------|----------------|
| Date                 | Market | Generator | Status            | Time           | Energy | 10 Min Spin | 10 Min Non-Synch | 30 Min Spin | 30 Min Non-Synch | Regulation Capacity | Op Cap Reserve |
| 10/15/2008 02:00 EDT | DAM    |           | VALIDATION PASSED |                |        |             |                  |             |                  |                     |                |
| 10/15/2008 05:00 EDT | DAM    |           | VALIDATION PASSED |                |        |             |                  |             |                  |                     |                |
| 10/15/2008 05:00 EDT | DAM    |           | BID ACCEPTED      | 05:00          | 44.0   |             |                  |             |                  | 0.0                 |                |
| 10/15/2008 07:00 EDT | DAM    |           | VALIDATION PASSED |                |        |             |                  |             |                  |                     |                |
| 10/15/2008 08:00 EDT | DAM    |           | VALIDATION PASSED |                |        |             |                  |             |                  |                     |                |

Number of rows returned: 5

[SELECT ALL](#) [CLEAR ALL](#) [DELETE SELECTED](#)

- The MIS retrieves and presents in the results page, all of the generator bids that meet the search criteria that you have entered.
- The results page is identical to the one presented after submitting a new generator bid.
- The results of your search criteria are presented on an hourly basis. For example, if you asked to view a particular generator bid entered for a 24-hour period, you will receive 24 entries showing the bid data for each hour.
- There are navigation buttons at the bottom of the screen:
  - SELECT ALL** selects all of the generator bids displayed on the visible portion of the E-5 display.
  - CLEAR ALL** clears the visible portion of the display.
  - DELETE SELECTED** deletes the generator bid(s) selected in the right-hand column (Select for Deletion).
- If the bid has been accepted in either the DAM or HAM, the *Schedules (MW)* section of the display will be populated. This shows you exactly what has been submitted and accepted by the MIS. For a BTM:NG Resource, the schedule (MW) displayed is the MW scheduled to be provided to the wholesale market and is in addition to the MW required to serve the Host Load. Thus, if a BTM:NG Resource has a schedule for 70 MW the self-scheduled MW will be displayed as 70 MW.

7. Delete bid if this is the desired action. If not, proceed to step 7:

- A single generator bid for one hour may be deleted by selecting the **DELETE** hyperlink in the corresponding row.
- One or several generator bids for multiple hours may be deleted by checking the corresponding Delete checkbox(es) in the rightmost column and then selecting **DELETE SELECTED** at the bottom of the display.
- Only bids that have not reached the evaluation stage may be deleted.
- There is no need to delete bids when bids require modification. This feature is only useful if the Market Participant User does not want any bid for a particular interval.

8. To continue with the changing bid process, select the Generator Name next to the hour whose bid you want to change. This calls up the Generator Bid Modification display showing the appropriate bid data and schedule for the date and hour, as illustrated in Figure 63.
  - You cannot make any bid modifications via the Generator Bid Results display (Figure 62), except to delete a bid per step 6 above; instead, you must execute step 7, which brings you back to the Generator Bid Modification display (see Figure 63).

**Figure 63: Generator Bid Modifications display**

The screenshot shows the 'Generator Bid' modification screen for a generator named 'TEST\_TEST\_TEST1'. The 'Bid Date' is set to '01/01/2023 04:00'. The 'Num of Hours' is set to '1'. In the 'Energy Bid' section, there are fields for CSR Injection Limit (MW), Lower Storage Limit (MW), Upper Storage Limit (MW), Upper Operating Limit (MW), Self Scheduled MW, CSR Withdrawal Limit (MW), ESR Energy Management Mode, Emergency Upper Operating Limit (MW), and Unit Operations. The 'Bid Curve (Block Format)' section displays price points for various time intervals. The 'Ancillary Services' section lists spinning reserves and non-synchronized reserves. The 'Schedule' section shows scheduled MWhs for different services. The 'Status Messages' section indicates 'VALIDATION PASSED'.

- The bid date is initialized to the date and hour of the hour you selected from the Generator Bid Results display (Figure 62).
  - The Num of Hours data field is initialized to one, indicating that the data you modify applies only to the hour entered in the bid date.
  - At this point, you make your changes and initiate a SUBMIT action similar to the procedure for entering data for a new generator bid, as described starting with step 7 in Section [7.4.1](#).
9. After all your changes have been made, select **SUBMIT**, and the MIS will check your entries to see if they pass a validation test.

**Note:** You may also elect to **RESET** the entries, which is equivalent to an UNDO in Microsoft.

- Modifications of bids in the **EVALUATING** or **ACCEPTED** status are not permitted.
- Modifications to bids previously validated must be resubmitted for validation.

- 10.** Check the results of the validation process that are presented in the Generator Bid Results display (Figure 62).

After the DAM/ Real-Time (HAM) closing and posting, the accepted generator bid information is available at the bottom of the Generator Bid (Figure 63) display. These values show what the generator or Aggregation is expected to produce for the selected hour. The status messages field at the very bottom of the display is updated as soon as the bid is processed to display validation and constraint error messages, if any, associated with the bid.

### ***Alternative Approaches for Changing Bid Data***

#### **Special Notes**

Changing generator or Aggregation bid data is just like submitting a new generator or Aggregation bid except the bid template is already filled out for you and you are doing it for one hour at a time. However, you are not restricted in step 7 to changing only one-hours' worth of data at a time:

- o Once you reach step 7, you may change the bid date and Num of Hours value
- o This replaces any bid data for the hours specified, that you might have submitted previously.

There is also a way to use the bid data for one generator or Aggregation for a given date as the starting point for a second generator at a different date:

Once you reach step 7, you can use the pull-down menu next to the Generator Name to select a different unit. You may also change the bid date

The data does not change unless you continue and change it. A SUBMIT action can be initiated, and will submit the bid data for the generator name and bid date that you have entered.

### ***Reasons to Review Generator Bids***

The Generator Bid Results display (Figure 62) not only provides the means to modify generator bid data, it also serves as the primary mechanism for calling up and reviewing the status of your bid before, during, and after the evaluation process. It is incumbent upon you to check your bids as they move through the stages of verification, evaluation, and acceptance/rejection.

The following are sample instances where you might want to check on the status of your generator bid:

- Before the day-ahead or real-time market closes, you may want to verify that your bids have passed all of the validation checks. If not, actions can be taken prior to market close to get bids to the Validation Passed status so that they will be evaluated (status will be **VALIDATION PASSED** or **VALIDATION FAILED**)
- After the day-ahead or real-time market closes, you may want to verify that your bids are currently being evaluated (status will be **EVALUATING**)
- After the posting of day-ahead or real-time market results, you may want to confirm whether a portion or all of your bids have been accepted or whether the NYISO could not meet the bid request at this time, (status will be **BID ACCEPTED** or **BID REJECTED**).

## ***Hyperlinks***

The Market Participant User is able to access a detailed view of the generator bid data through hyperlinks on the Generator Bid Results display (Figure 62):

- This is done by selecting the generator name on the Generator Bid Results display.

This brings up the Generator Bid display (Figure 63) with information already populated on the display.

## ***Review Generator Forecast Schedules Page***

An authorized market participant will be able to view advisory look-ahead schedules from RTD and RTC software. This new page allows a market participant to select the generator and Aggregation (s) for which they would like to view advisory schedules (see Figure 56).

Data is automatically refreshed every 30 seconds.

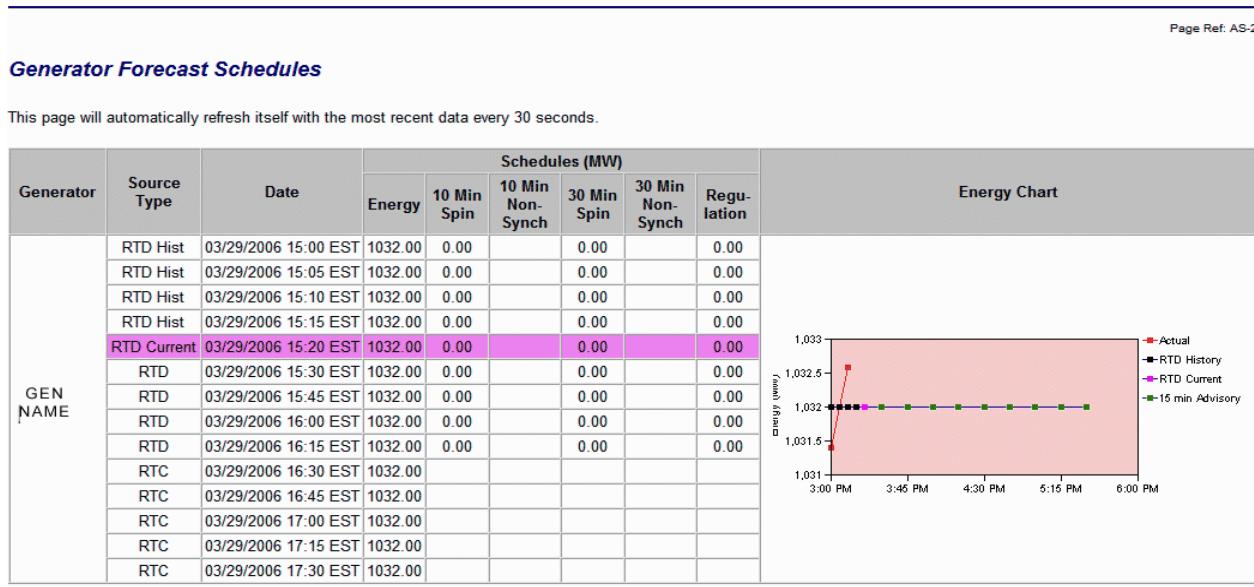
For a BTM:NG Resource, the schedule (MW) displayed is the MWs scheduled to be provided to the wholesale market and is in addition to the MW required to serve the Host Load. Thus, if a BTM:NG Resource has a schedule for 70 MW, the schedule will be displayed as 70 MW.

Market Participant Administrators control access to this page, and can give the appropriate Users read-only access to this display.

Data displayed on this screen:

- RTD History – Shows last 4 basepoints
- RTD Current Basepoint – Shows current basepoints
- RTC Advisory Basepoints – Shows next 10 15-minute advisory basepoints
- Actual Generator Performance – Shows last 4 actual basepoints

**Figure 64: Generator Forecast Schedules page**



## 7.5. Load Bids

There are two basic tasks associated with submitting and reviewing information associated with load bids:

- Submit New Load Bids (Section [7.5.1](#))
- Review/Change Load Bids (Section [7.5.2](#)).
- Users that are not authorized for any loads will not see this menu option.

### 7.5.1. Submit New Load Bids

#### *Introduction*

Load bids are entered for the DAM only; you are not permitted to enter load bids in the hour-ahead market.

Rules for new load bids are as follows:

- Your load bid must be submitted and have a status of “Validation Passed” by 5 A.M. on the day ahead of the bid date.
- Load forecast data should be supplied seven days in advance to support Reliability Evaluation Studies associated with the SCUC.
- Bids may be submitted up to 15 days in advance of the close of the DAM.

### ***Bidding, Scheduling, and Reporting Station Power***

Participating generators may schedule Station Power in the DAM through the existing MIS Load Bid page. Generators schedule load through the Station Power load bus, which is used to account for Station Power energy consumed for each unit.

Procedurally, a generator that will be offline for the bid date may schedule Station Power until the close of the DAM. Generators schedule the energy by submitting a DAM Load Bid. The NYISO posts the energy scheduled in the DAM at bid post. In general, a generator would schedule Station Power only for units scheduled to be offline. Station Power scheduled in the DAM will balance in real-time. If Station Power is not scheduled in the DAM, it will be settled at the real-time generator LBMP. Schedules are submitted through the existing Load Bid page.

The existing MIS Load Forecast page enables generators to report actual Station Power consumption. After the DAM closes, the forecast portion of the Station Power bid can be updated until 12:00 noon after the bid date, to reflect actual real-time usage. The value in this field is used for billing purposes. These actual readings are used as input into the daily billing process, for the initial invoice, and until the TO-sent meter readings are reported for generator Station Power.

The various aspects of Station Power are detailed in NYISO Technical Bulletins and Manuals. Technical Bulletin 117 describes Station Power set-up, metering, and data modeling requirements; The Settlement Data Applications User's Guide clarifies TO reporting, Web-based reconciliation, and Station Power; The Accounting and Billing Manual details the Station Power calculation and settlement process, the ancillary services settlements associated with Station Power, and explains changes to the Consolidated Invoice resulting from Station Power. These documents are all available from the NYISO Web site at the following URL:

<https://www.nyiso.com/manuals-tech-bulletins-user-guides>

**Note:** Station Power Load bids are not to be used for virtual bidding. Virtual bidding is authorized under NYISO tariffs only at designated virtual bidding load buses.

### ***Prerequisites***

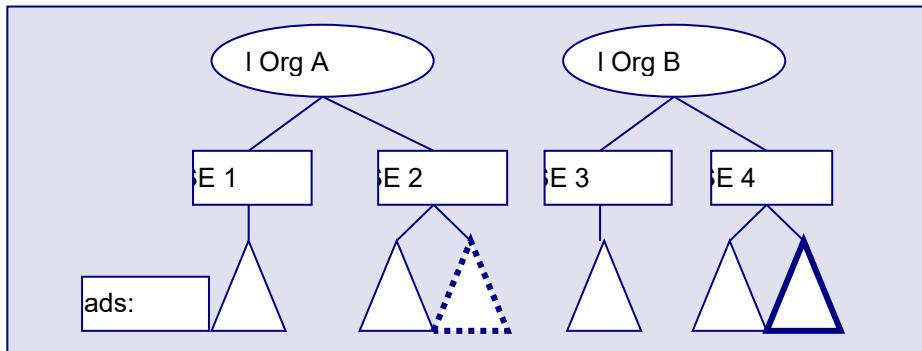
Before beginning the task of submitting load bids, you should make sure that the "Load" authorization flag is assigned to your User account. You also must make sure that your load has been established in the MIS. Each NYISO Customer that has load will inform the NYISO of the load and the load will be modeled in the MIS with a unique ID, a link to an LSE, and a link to one of the NYISO sub-zones. These loads must be modeled 30 days in advance of taking service under the NYISO.

Each LSE has one associated Billing Organization. Bills and invoices are calculated for each Billing Organization and include the settlements for the associated LSE(s) and load(s). If a retail access load customer changes from one LSE to another LSE, LSEs must coordinate the change between themselves and the TO so that each LSE forecasts, bids, and schedules the changed load accurately. Within each sub-zone, the TO must certify that the LSEs have met their requirements and can conduct business in that sub-zone.

The NYISO will ask for verification that all LSEs, with their associated loads that are modeled in the MIS are certified by the TO.

The load names specified in the NYISO MIS represent the customers that have a certain amount of load (one megawatt or greater - individual or aggregated). Individual retail customers, meters, or accounts are not tracked by the ISO. The NYISO does not need to know if accounts or customers switch providers. The NYISO only needs to know which providers are certified. The TO and the LSE must coordinate activities when customers switch providers to ensure that the load is not missed or double counted.

The following diagram helps explain how a load change may occur.



If Load c switches to LSE 4 then:

LSE 2 and 4 coordinate with the TO-LSE 1.

Billing Org B receives Load c settlement.

LSE 4 now forecasts, bids, or schedules Load c.

LSE 2 does not forecast, bid, or schedule Load c.

The NYISO only needs to know that LSE 2 and 4 are certified by the TO. If only a partial Load is switched, then only that amount is coordinated between parties. If Load is incorrectly bid or scheduled, then after actual metering is determined, the billing will be adjusted for Loads that are off schedule. See “Load Forecasting,” beginning on page [150](#).

The steps for submitting new load bids are as follows.

### **To Submit New Load Bids**

1. Log in to your User account as outlined in the corresponding procedure on page [102](#).
2. From the User menu frame, choose **Physical Load Bids**. The Load Bid Selection Criteria display is presented in the display/results frame, as illustrated in Figure 65, following.

**Figure 65: Load Bid Selection Criteria (F-5-PL) display**

Page Ref: F-5-PL

**Physical Load Bid Selection Criteria**

Physical Load Name:

Date:  (mm/dd/yyyy)

**3.** Enter the following query information to set up the template for entering the load bid:

- a. **Load Name** – Select the name of the load for which you want to submit a bid:
    - The pull-down menu lists the loads for which you are authorized to enter bids.
    - Select the load name from the pull-down menu. Only one load may be selected.
  - b. **Date** – Enter the Date for the 24-hour period you wish to enter a new load bid:
    - This date represents the effective date of the bid.
    - The format is mm/dd/yyyy.
- 4.** Once you have entered the Load Name and Date, activate the **DISPLAY** button. The MIS will present the Load Bid display, illustrated in Figure 66 following, for you to complete.

**Continue with completing the information for the load bid by entering the load information described below:**

**Note:** Figure 66 to show only the data fields that are relevant to new load bids. The remaining fields will be discussed in Section [7.5.2](#) as they become relevant.

Load bids may be submitted only in the DAM.

**Figure 66: Load Bid Profile display**

Page Ref: F-3-PL

**Physical Load Bid**

| Physical Load Name: BOB'S MILLWOOD |             |              | Date: 02/24/2001 (mm/dd/yyyy)     |       |              |       |              |        |                     |       |                 |       |            |              |                |                    |     |
|------------------------------------|-------------|--------------|-----------------------------------|-------|--------------|-------|--------------|--------|---------------------|-------|-----------------|-------|------------|--------------|----------------|--------------------|-----|
| BOB'S MILLWOOD                     |             |              | Interruptible Type: None Selected |       |              |       |              |        |                     |       |                 |       |            |              |                |                    |     |
| Time                               | Forecast MW | Fixed Bid MW | Price Cap #1                      |       | Price Cap #2 |       | Price Cap #3 |        | Interrupt Price Cap |       | Interrupt Fixed |       | Bid Status | Schedule     |                |                    |     |
|                                    |             |              | MW                                | \$/MW | MW           | \$/MW | MW           | \$/MW  | MW                  | \$/MW | MW              | \$/MW |            | Price Cap    | Inter Fixed MW | Inter Price Cap MW |     |
| 00:00                              |             |              | 38.0                              | 25.00 | 25.0         | 55.00 | 5.0          | 600.00 |                     |       |                 |       |            | BID ACCEPTED | 19.00          | 0.0                | 0.0 |
| 01:00                              |             |              | 12.0                              | 25.00 | 3.0          | 55.00 | 3.0          | 600.00 |                     |       |                 |       |            | BID ACCEPTED | 6.00           | 0.0                | 0.0 |
| 02:00                              |             |              | 50.0                              | 25.00 | 5.0          | 55.00 | 5.0          | 600.00 |                     |       |                 |       |            | BID ACCEPTED | 10.00          | 0.0                | 0.0 |
| 03:00                              |             |              | 11.0                              | 25.00 | 11.0         | 55.00 | 8.0          | 600.00 |                     |       |                 |       |            | BID ACCEPTED | 19.00          | 0.0                | 0.0 |
| 04:00                              |             |              | 50.0                              | 25.00 | 12.0         | 55.00 | 9.0          | 600.00 |                     |       |                 |       |            | BID ACCEPTED | 21.00          | 0.0                | 0.0 |
| 05:00                              |             |              | 13.0                              | 25.00 | 6.0          | 55.00 | 2.0          | 600.00 |                     |       |                 |       |            | BID ACCEPTED | 8.00           | 0.0                | 0.0 |
| 06:00                              |             |              | 8.0                               | 25.00 | 4.0          | 55.00 | 5.0          | 600.00 |                     |       |                 |       |            | BID ACCEPTED | 6.00           | 0.0                | 0.0 |

- a. **Load Name** – Verify that load name appearing *below* the Load Name field is the same as what you entered in the Load Bid Query Selection Criteria display:

**Note:** The use of the pull-down menu of load names is reviewed in the Review/Change Load Bid task described in Section [7.5.2](#).

- b. **Date** – Enter the date for the load bid profile:
- The format is mm/dd/yyyy.
  - If you do not enter a date, your bid will not pass the validation check and an error will be returned.
- c. **Interruptible Type** - You must make one of the following selections which describes the contribution of the load toward reserves:
- 10-Minute Interruptible** – For reserve purposes, the load is considered interruptible within 10 minutes
  - 30-Minute Interruptible** – For reserve purposes, the load is considered interruptible within 30 minutes
  - None Selected** – The load is not interruptible.

If you do not make a selection, the MIS will default to *None Selected*.

If **10-Minute Interruptible** is selected, the Market Participant must also select a load bus that is qualified for 10-Minute Interruptible load bidding.

If *30-Minute Interruptible* is selected the Market Participant must select a load bus that is qualified for 30-Minute Interruptible load bidding.

5. Complete the information for the load bid by entering the load profile information described below. Data may be entered for any or all hours of the 24-hour profile:

- a. **Time** – This pre-configured field identifies the particular hour in the profile:

- The format for the target time is hh:mm, on a 24-hour scale. The first hour is 0 and the last hour is 23.
- Both 23- and 25-hour days are supported to accommodate the changes to daylight savings time:
  - On 23-hour days, no entry for Hour 02:00 will be shown.
  - On 25-hour days, two entries for Hour 01:00 will be shown.

**Note:** For more information on Standard and Daylight Savings time, see Technical Bulletins 64 and 88, respectively. (These documents are available from the NYISO Web site at <https://www.nyiso.com/manuals-tech-bulletins-user-guides>).

- b. **Forecast MW** – Enter the forecasted MW value for the load:

- The Market Participant User should submit the load forecast for seven days in advance.
- The value in the Forecast MW field must be a whole number greater than zero and should equal the sum of Bilateral Transactions, Fixed MW bid, Price Capped Loads and the expected Real- Time market energy required to serve your load.

- c. **Fixed Bid MW** – This is the minimum amount for which a forward contract will be generated and must be a whole number greater than zero. More load may be contracted depending on the Price Cap data entered.

- d. **Price Cap** – Enter the MW and \$/MW values that define the price you are willing to pay for predefined increments of load. Only three price caps may be submitted per load:

- Price Cap MW values must each be a whole number greater than zero.
- The MW points are blocks associated with the \$/MW values.
- The \$/MW value must be in increasing order from Price Cap #1 to Price Cap # 3.
- Price Cap points cannot be skipped. For example, data cannot be entered in Price Cap #1 and Price Cap #3, but not in Price Cap #2.

When submitting a load bid, a non-null value must be entered for Forecast MW and/or Fixed Bid MW and/or Price Cap #1 MW. At least one of these fields must have a non-null value.

### ***Load Forecasting***

The load forecast predicts the level of Load at a point of withdrawal for each hour. Since actual metered LSE bus withdrawals are not available to the NYISO until the Transmission Owner/Meter Authorities obtain those meter readings some months later, load forecasts are also used to allocate the metered zonal load among the LSEs for initial invoicing. LSEs' settlements are subsequently adjusted to metered withdrawals through the true-up invoicing process. Hourly Load Forecasts submitted in the DAM can be revised up to noon the day after the transaction day to provide for a more accurate initial settlement by adjusting forecasted values to reflect actual withdrawals observed in real-time.

If an organization utilizes multiple LSE buses to schedule energy purchases within a particular sub-zone, but submits a load forecast for those loads in only one of the LSE's bus bids, then the energy proportioned to each load bus will not coincide with the respective Fixed Energy Bids and Bilaterals for the other LSE buses. If scheduled bilateral megawatt withdrawals sinking at an LSE's bus are excluded from the hourly forecasted withdrawal for that LSE's bus the ensuing settlement outcome will result in the bilateral energy schedule being sold back into the LBMP Balancing Market in the initial invoice. If the submitted forecast includes the load to be served via the Bilateral of another LSE's bus, the resultant settlement will entail a purchase from the LBMP market for that LSE's bus.

As previously stated, Hourly Load Forecasts submitted in the DAM can be revised up until noon of the day following the effective date of the forecast. The MW total of the revised Load Forecasts for the LSEs comprising the sub-zone must equal the gross forecast for the sub-zone.

For further information on forecasts and metering adjustments, please review the NYISO Billing and Accounting Manual at  
<http://www.nyiso.com/public/documents/manuals/administrative.jsp>.

**Example 1:** An organization's total sub-zonal load for an hour is 2000 MW. The organization is using one load/sink to schedule the energy needed to satisfy the total sub-zonal load.

- Organization has entered a load bid of 1500 MW in the DAM
- (Bid accepted in MIS)
- Organization has entered firm transaction #1 for 200 MW
- (Source confirms schedule & 200 MW scheduled in MIS)
- Organization has entered firm transaction #2 for 100 MW
- (Source confirms schedule & 100 MW scheduled in MIS)

**Forecast 1:** 2000 MW

**Result 1:** 1500 MW purchased in the Day Ahead LBMP Market

200 MW purchased in the Real-Time Market

200 MW Purchased in bilateral market with transaction #1

100 MW Purchased in bilateral market with transaction #2

**Total 1:** 2000 MW

**Examples 2 and 3:** An organization's total sub-zonal load for an hour is 2000 MW. The organization is using three loads/sinks to schedule the energy needed to satisfy the total sub-zonal load.

- Load/sink #1 has bid 1500 MW in the DAM (Bid accepted in MIS)
- Load/sink #2 has an auto-confirm firm transaction for 200 MW (200 MW scheduled)
- Load/sink #3 has an auto-confirm firm transaction for 100 MW (100 MW scheduled)

**Forecast 2:** Load/sink #1 enters a forecast load of 1700 MW

Load/sink #2 enters a forecast load of 200 MW

Load/sink #3 enters a forecast load of 100 MW

**Result 2:** Load/sink #1 1500 MW purchased in the Day Ahead LBMP Market

200 MW purchased in the Real-Time Market (RTM)

Load/sink #2 200 MW received through firm transaction

0 MW is purchased/sold in the RTM

Load/sink #3 100 MW received through firm transaction

0 MW is purchased/sold in the RTM

**Total 2:** 2000 MW

|                    |  |
|--------------------|--|
| <b>Forecast 3:</b> | Load/sink #1 enters a forecast load of 2000 MW                   |
|                    | Load/sink #2 doesn't enter a forecast load                       |
|                    | Load/sink #3 doesn't enter a forecast load                       |
| <b>Result 3:</b>   | Load/sink #1      1500 MW purchased in the Day Ahead LBMP Market |
|                    | 500 MW purchased in the RTM                                      |
|                    | Load/sink #2      200 MW received through firm transaction       |
|                    | LSE considered "Off-Schedule," 200 MW sold into RTM              |
|                    | Load/sink #3      100 MW received through firm transaction       |
|                    | LSE considered "Off-Schedule," 100 MW sold into RTM              |
| <b>Total 3:</b>    | 2000 MW  |

### ***Under-Forecast Monitoring Process***

Effective July 31, 2006, NYISO implemented a procedure to determine if a LSE is submitting a load forecast and to evaluate the predictive quality of the load forecast submitted. Specifically, the process is designed to provide a benchmark for each LSE as a means to determine if the respective load forecast submitted is predictive of actual load. In addition, the process includes remedies available to the NYISO to address Market Participants that have been identified as chronic under-forecasters.

Remedies available to the NYISO include 1) the replacement of a Market Participant's load forecast with a value more representative of actual withdrawals and 2) calculation of an estimated invoice in the initial settlement period.

### ***Summary of Monitoring Process***

The NYISO's Credit Department monitors LSE load forecasting three times per month and benchmarks the respective forecast against the actual historical load and monthly UCAP requirements provided by Transmission Owners ("TOs"). The UCAP requirements provide a basis on which an LSE's actual energy consumption can be anticipated from month to month. For new LSEs, a process has been developed that incorporates the LSE bus's respective UCAP requirements in the first four billing months as a basis for a load profile, which is shaped to conform to the respective sub-zone's load profile.

If the Credit Department observes under-forecasting at 90% or less of the NYISO's projected actual load for the LSE bus during the review of days 1-10 (performed on or about the 12<sup>th</sup> of the month) and/or days 1-20 (performed on or about the 22<sup>nd</sup> of the

month), Credit Department staff may contact the applicable LSEs to identify opportunities to improve the accuracy of the LSEs' forecasting processes or to reconcile variations from the NYISO's methodology to project the withdrawals for those LSE buses. The goal is to encourage LSEs to improve forecasts by the end of the month.

Upon the Credit Department's review of the cumulative month, (performed on/or about the 3<sup>rd</sup> of the following month), an LSE who is observed to be under forecasting at 73% or below the NYISO's projected actual load for the LSE bus may be subject to a load forecast replacement using sub-zonal load modeling methodology described above.

### ***Updating Forecast Megawatts***

After the DAM closes, the load forecast portion of the load bid can be updated until 12:00 p.m. after the bid date, to reflect the actual real-time load. The value in this field is used for billing purposes. The more accurate your value is in this field, the smaller the true-up will be when actual meter readings are rendered.

### ***Zonal Price Capped Load Bidding***

Traditionally, LSEs purchase fixed blocks of energy in the DAM regardless of the zonal Day-Ahead LBMP price. Zonal Price Capped Load Bidding allows an LSE to submit a bid for a block of energy, on a per zone basis, and to specify the price (\$/MWh) it is willing to pay for that block. If the zonal Day-Ahead LBMP for energy were below the bid price cap specified, the LSE would purchase the block of energy. If the zonal Day-Ahead LBMP were above the bid price cap, the LSE would not purchase the additional block of energy. If the zonal Day-Ahead LBMP for energy equals the bid price cap, the LSE would purchase an amount of energy somewhere between zero and the entire block of Price Capped Load. Since the Price Capped Load is at the marginal price, the amount of energy purchased will depend on the SCUC process and its most economic secure solution.

For each zone served, an LSE may submit a bid for up to three price-capped load blocks in addition to its bid for a fixed block of energy for purchase regardless of price. The price for each subsequent price-capped load block must be higher than the previous block. The fixed bid and up to three Price Capped Load bids are separate, distinct, and additive load bids and each represents a unique block of load.

### ***Example:***

Assume an LSE bids 100 MW as fixed Day-Ahead energy; a 20 MW block at a price cap of 25 \$/MWh; a 30 MW block at a price cap of 27 \$/MWh; and a 50 MW block at a price cap of 29 \$/MWh.

If the resulting Day-Ahead LBMP for energy is 24 \$/MWh (see first results column in example table on page 2), a price that is below all three Price Capped Load bids, the LSE will be scheduled to purchase 200 MW at the Day-Ahead price of 24 \$/MWh.

If the resulting Day-Ahead Energy LBMP is 30 \$/MWh (see last column in example table below), or a price that is above all three price caps, the LSE will be scheduled to purchase 100 MW at the Day-Ahead price of 30 \$/MWh. The LSE will not be scheduled to purchase any of its price-capped energy blocks because the Day-Ahead LBMP of 30 \$/MWh is above what the LSE bid for this energy. Should the LSE actually consume 200 MWs in real time in these hours, it must serve the load through bilateral arrangements or pay the Real-Time price for the additional 100 MWs.

The resulting Day-Ahead load schedules are also shown in

Figure 67, following, for cases where the Day-Ahead LBMPs are 26, 27, and 27.50 \$/MWh.

**Figure 67: Sample Day-Ahead Load Schedules**

|                        | Day-Ahead Bid |                 | Resulting Day-Ahead Schedule |                   |                       |                      |                   |
|------------------------|---------------|-----------------|------------------------------|-------------------|-----------------------|----------------------|-------------------|
|                        | Amount MW     | Price Cap \$/MW | If LBMP = \$24/MW            | If LBMP = \$26/MW | If LBMP = \$27/MW     | If LBMP = \$27.50/MW | If LBMP = \$30/MW |
| Fixed Bid Block        | 100           | --              | 100 MW                       | 100 MW            | 100 MW                | 100 MW               | 100 MW            |
| Price Cap Bid Block #1 | 20            | 25              | 20 MW                        | 0 MW              | 0 MW                  | 0 MW                 | 0 MW              |
| Price Cap Bid Block #2 | 30            | 27              | 30 MW                        | 30 MW             | 0 - 30 MW             | 0 MW                 | 0 MW              |
| Price Cap Bid Block #3 | 50            | 29              | 50 MW                        | 50 MW             | 50 MW                 | 50 MW                | 0 MW              |
| Total                  | 200           | --              | 200 MW @ \$24/MWh            | 180 MW @ \$26/MWh | 150-180 MW @ \$27/MWh | 150 MW @ \$27.50/MWh | 100 MW @ \$30/MWh |

Under SMD 2, one zonal LBMP value is used for both scheduling and billing Price-Capped Loads; this value is a load-weighted average of load bus LBMPs in the relevant zone.

**Note:** The default values for these fields are null.

 **Special Note:** Market Participants interested in utilizing Zonal Price Capped Load Bids must contact their NYISO Customer Representative to register for this service and to have the Zonal Price Capped Load bus(es) modeled in the MIS.

- e. **Interrupt Price Cap** – Enter the MW and \$/MW that define the price and amount you are willing to have your load associated with price caps curtailed.

The type of reserve that the bid is good for is based on the interruptible type (i.e., 10-Minute or 30-Minute) selected in Step 5 above.

 **Special Note:** This is not a service that is biddable until proper metering and performance tracking is available for loads to verify curtailment when called upon.

- f. **Interrupt Fixed** – Enter the MW and \$/MW that define the price and amount you are willing to have your load associated with Fixed Bid MW curtailed:

The type of reserve that the bid is good for is based on the interruptible type (i.e., 10-Minute or 30-Minute) selected in Step 5 above.

#### **Special Notes**

This is not a service that is biddable until proper metering and performance tracking is available for loads to verify curtailment when called upon.

Market Participants interested in bidding Interruptible Price Cap or Interruptible Fixed must contact their NYISO Customer Representative to register for this service and to have the 10 and/or 30 Minute Interruptible Qualified Load bus(es) modeled in the MIS.

6. After you have entered all the data, select **SUBMIT**, and the MIS will check your entries.
  - If the MIS detects an error, an error message will be displayed. The User can click the back button on their Web browser to return to the Load Bid Profile, modify the bid containing the error and resubmit the bids.
  - If the MIS does not detect any errors, the MIS will verify that the submitted bids pass the validation test:

As a result, of the SUBMIT action, the Load Bid (F-3-PL) display is refreshed to show the Bid Status (displayed as a hyperlink). The User can click on the status hyperlink to display a window showing constraint and/or validation messages, if any.

7. Check the results of the validation process via the bid status fields for each hour of the profile:

- The actual Load Bid display has been truncated in the Figure 68, following, to show the Bid Status. The remaining fields will be discussed in Section [7.5.2](#) as they become relevant:

**Figure 68: Load Bid Validation Check display**

#### *Physical Load Bid*

| Physical Load Name: BOB'S MILLWOOD |             |              | Date: 03/29/2008 (mm/dd/yyyy)     |                    |                 |                    |                 |                    |                        |                           |                    |                       |              |           |                |              |
|------------------------------------|-------------|--------------|-----------------------------------|--------------------|-----------------|--------------------|-----------------|--------------------|------------------------|---------------------------|--------------------|-----------------------|--------------|-----------|----------------|--------------|
| BOB'S MILLWOOD                     |             |              | Interruptible Type: None Selected |                    |                 |                    |                 |                    |                        |                           |                    |                       |              |           |                |              |
| Time                               | Forecast MW | Fixed Bid MW | Price Cap #1 MW                   | Price Cap #1 \$/MW | Price Cap #2 MW | Price Cap #2 \$/MW | Price Cap #3 MW | Price Cap #3 \$/MW | Interrupt Price Cap MW | Interrupt Price Cap \$/MW | Interrupt Fixed MW | Interrupt Fixed \$/MW | Bid Status   | Schedule  |                |              |
|                                    | 00:00       | 100.00       | 100.00                            |                    |                 |                    |                 |                    |                        |                           |                    |                       |              | Price Cap | Inter Fixed MW | Inter Pri MW |
| 00:00                              | 100.00      | 100.00       |                                   |                    |                 |                    |                 |                    |                        |                           |                    |                       | BID ACCEPTED |           |                |              |
| 01:00                              | 100.00      | 100.00       |                                   |                    |                 |                    |                 |                    |                        |                           |                    |                       | BID ACCEPTED |           |                |              |
| 02:00                              | 100.00      | 100.00       |                                   |                    |                 |                    |                 |                    |                        |                           |                    |                       | BID ACCEPTED |           |                |              |

- An immediate indication of **VALIDATION PASSED** or **VALIDATION FAILED** will appear after the bid is submitted:
  - If the Status is **VALIDATED PASSED**, then your bid has passed the screening to determine if all required data has been entered
  - If the Status is **VALIDATION FAILED**, then your bid has either incorrect or missing data and you should go back and correct your error.

#### **Special Notes**

While you should check all data to make sure it represents the data you intended to enter, you need to check the Bid Status for each hour to see if your bid was accepted for consideration.

### **7.5.2. Review/Change Physical Load Bids**

#### *Introduction*

Physical Load bids are entered and changeable in the DAM only; you are not permitted to enter load bids in the hour-ahead market. The capability to change a previously submitted bid depends on the current date and time relative to the particular market you are submitting the bid.

- Your load bid changes must be completed and have a status of **Validation Passed** by 5 A.M. of the day ahead of the bid date.

- The load forecast portion of the bid may be modified up to 12:00 P.M. of the day after the day being bid.

### ***Prerequisites***

Before beginning the task of changing load bids, you should make sure that “Loads” authorization flag is assigned to your User account. You also must make sure that your load has been established in the MIS by following the directions in ***Prerequisites*** under Section [7.5.1](#).

The procedure for changing load bids follows.

### ***To Change Load Bids***

- Log in to your User account as outlined in the corresponding procedure on page [102](#).
- From the User menu frame, choose **Load Bids**. The Load Bid Selection Criteria display is presented in the display/results frame, as illustrated in Figure 69 following.

**Figure 69: Load Bid Selection Criteria**

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Page Ref: F-5-PL

**Physical Load Bid Selection Criteria**

|                     |   |   |
|---------------------|---|---|
| Physical Load Name: | <input style="border: 1px solid black; padding: 2px; width: 100%; height: 100%;" type="button" value="None Selected"/>          | <input style="border: 1px solid black; padding: 2px; width: 100px; height: 25px; margin-bottom: 5px;" type="button" value="DISPLAY"/> |
| Date:               | <input style="width: 100%; height: 25px; border: 1px solid black; padding: 2px; margin-bottom: 5px;" type="text"/> (mm/dd/yyyy) |   |

- Enter the following query information to establish access to the desired load bid profile:
  - Load Name** – Select the name of the load for which you want to change a bid:
    - The pull-down menu lists the loads for which you are authorized to enter bids.
    - Select the load name from the pull-down menu. Only one load may be selected.
  - Date** – Enter the Date for the 24-hour period that you wish to recall.
    - This date represents the effective date of the bid.
    - The format is mm/dd/yyyy.

- After you have entered the Load Name and Date, select **DISPLAY**, and the MIS will retrieve the load profile for the load name and specified date on the Load Bid display. as illustrated in Figure 70, following.

**Figure 70: Load Bid Display with Schedule display**

**Physical Load Bid**

| Physical Load Name: BOB'S MILLWOOD |              |                | Date: 03/29/2006 (mm/dd/yyyy)     |
|------------------------------------|--------------|----------------|-----------------------------------|
| BOB'S MILLWOOD                     |              |                | Interruptible Type: None Selected |
| <b>Schedule</b>                    |              |                |                                   |
| Time                               | Forecast MW  | Fixed Bid MW   | Price Cap #1 MW \$/MW             |
| 00:00                              | 100.00       | 100.00         |                                   |
| 01:00                              | 100.00       | 100.00         |                                   |
| 02:00                              | 100.00       | 100.00         |                                   |
| Bid Status                         | Price Cap    | Inter Fixed MW | Inter Pri MW                      |
|                                    | BID ACCEPTED |                |                                   |
|                                    | BID ACCEPTED |                |                                   |
|                                    | BID ACCEPTED |                |                                   |

- The load profile shows what was bid to MIS. If the bid has been accepted, the User will also see the following three additional fields:
  - Price Cap**
  - Interrupt Fixed MW**
  - Interrupt Price Cap MW**

These fields show the price cap and interruptible MW values that the MIS has already accepted. Fixed bid MW values are not shown as part of the schedule. This is because all fixed bid MW values are automatically accepted.

- Change the profile information as desired:

- The Market Participant User may change and resubmit any part of the bid prior to the evaluation stage. The bid may not be modified if it is in the **EVALUATING** or **ACCEPTED** status.
- The User may elect to use this profile as a starting point for a different load name, date, and load type. If so, the User changes these fields. The User then initiates the **SUBMIT** action, which submits the profile for the specified load name, date, and load type.
- Modifications to bids previously validated must be resubmitted for validation.

6. After you have entered all the data, activate the **SUBMIT** button. The MIS will check your entries.
  - If the MIS detects an error, an error message will be displayed. The User can click the back button on their Web browser to return to the Load Bid Profile, modify the bid containing the error and resubmit the bids.
  - If the MIS does not detect any errors, the MIS will verify that the submitted bids pass the validation test:
    - If you have left any hours blank, these hours will not be updated when the bid is re-submitted
    - As a result of the SUBMIT action, the Load Bid display is refreshed to show the Bid Status.
7. You may also elect to **DELETE ALL** entries, which deletes all of the displayed load bids.

7. Check the results of the validation process via the bid status fields for each hour of the profile.

### ***Deleting Bids***

#### **Special Notes**

Load bids cannot be deleted after the DAM close associated with the bids.

When deleting Load Bids, the Market Participant must delete all bids listed in the displayed Bid Profile. Bids cannot be deleted individually.

Bids are deleted by clicking on the 'Delete All' button located underneath the displayed bid profile.

### ***Reasons to Review Load Bids***

The Load Bid display not only provides the means to modify load bid data, it also serves as the primary mechanism for calling up and reviewing the status of your bid before, during, and after the evaluation process. It is incumbent upon you to check your bids as they move through the stages of verification, evaluation, and acceptance/rejection.

The following are sample instances where you might want to check on the status of your load bid:

- Before the day-ahead or hour-ahead market closes, you may want to verify that your bids have passed all of the validation checks. If not, actions can be taken prior to market close to get bids to the Validation Passed status so that they will be evaluated (status will be **VALIDATION PASSED** or **VALIDATION FAILED**)
- After the day-ahead or hour-ahead market closes, you may want to verify that your bids are currently being evaluated (status will be **EVALUATING**)
- After the posting of day-ahead or hour-ahead market results, you may want to confirm whether a portion or all of your bids have been accepted or whether the NYISO could not meet the bid request at this time, (status will be **BID ACCEPTED** or **BID REJECTED**).

## ***Updating Forecast MW***

After the DAM closes, the load forecast portion of the load bid can be updated until 12:00 P.M. after the bid date to reflect the actual real-time load.

### **7.6. Internal Bilateral Transaction Bids**

Bids to schedule internal bilateral transactions are submitted through the Marketplace application as outlined below. Bids to schedule external energy market transactions are submitted using the JESS application. For details regarding the scheduling of external transactions see the JESS User's Guide.

Transaction bids can be submitted as:

- Day-Ahead Market (DAM) Transaction Bids
- Real-Time Market (HAM) Transaction Bids

#### ***Tasks***

There are three basic tasks associated with submitting and reviewing information associated with transaction bid:

- Submit New Transaction Bids (Section [7.6.1](#))
- Review/Change Transaction Bids (Section [7.6.2](#))
- Confirm Transaction Bids (Section [7.6.3](#)).

#### ***7.6.1. Submit a New Transaction Bid***

New bids for DAM and HAM transactions are submitted through identical screens; however, there are some differences:

- Market Participant Users may be separately authorized to bid DAM and HAM Transactions
- Your day-ahead transaction bid must be submitted and confirmed by 5 A.M. of the day ahead of the bid date
- Your real-time transaction bid must be submitted and confirmed 75 minutes ahead of the bid time.

#### ***Trading Hub Transactions***

- Trading hub transactions are internal bilateral transactions where either the source is a trading hub or the sink is a trading hub.
- There is one trading hub source and one trading hub sink for each of the eleven internal NYISO Zones.
- A transaction sourcing from a trading hub or sinking at a trading hub must have a corresponding organization specified to serve as the trading hub energy owner. The Organization selected as the trading hub energy owner is responsible for any trading hub energy settlement obligations associated with trading hub transactions with which the Organization is the source or sink organization.

- Any Market Participant authorized to bid transactions may bid trading hub transactions, but only those organizations pre-qualified with the NYISO may serve as a trading hub energy owner.
- A trading hub energy owner must have a balanced megawatt position at each trading hub in order for its trading hub transaction bids to be scheduled. A balanced megawatt position means that the trading hub energy owner must source the same amount of megawatts as it sinks at that zonal trading hub in a given market and hour. If an internal bilateral transaction involving a trading hub is not part of a balanced set by the time the market closes for that hour, it will not be scheduled.
- A transaction bid may not have a trading hub as both its source and sink.

### **Prerequisites**

Before beginning the task of submitting transactions bids, you should make sure that the “DAM Transactions,” “HAM Transactions,” and/or “Non-Firm” authorization flag is assigned to your User account.

The confirmation step must be performed by the FRP, an authorized User of the source, and an authorized User of the sink, unless you have pre-established confirmation trust relationships with the other parties to the transaction. We discuss confirmation in section 7.6.3.

The steps for submitting new transaction bids are as follows:

### **To Submit New Transaction Bids**

1. Log in to your User account as outlined in the corresponding procedure on page [102](#).
2. From the User menu frame, choose **New Transaction**. The New Transaction display is presented, as illustrated in Figure 71, following.
3. For Internal Bilateral Transactions:

**Figure 71: New External Bilateral or External LBMP**

#### **New Transaction**

| Source   | Sink   | User Ref             |        |                                   |                                      |  |
|--|--|----------------------|--------|-----------------------------------|--------------------------------------|--|
| <input type="button" value="None Selected"/>   | <input type="button" value="None Selected"/> | <input type="text"/> |        |                                   |                                      |  |
| Source Org (Trading Hubs Only)   | Sink Org (Trading Hubs Only)                 |                      |        |                                   |                                      |  |
| <input type="button" value="None Selected"/>   | <input type="button" value="None Selected"/> |                      |        |                                   |                                      |  |
| <table border="1"> <tr> <td>Date</td> <td>Market</td> </tr> <tr> <td><input type="text"/> (mm/dd/yyyy)</td> <td>DAM <input type="button" value="▼"/></td> </tr> </table> |  | Date                 | Market | <input type="text"/> (mm/dd/yyyy) | DAM <input type="button" value="▼"/> |  |
| Date   | Market                                       |                      |        |                                   |                                      |  |
| <input type="text"/> (mm/dd/yyyy)  | DAM <input type="button" value="▼"/>         |                      |        |                                   |                                      |  |
| <input type="button" value="SUBMIT"/>  |  |                      |        |                                   |                                      |  |

- a. **Source** – Select the generator, which is to be the source:

- The pull-down menu lists the valid sources that you may select. This list shows all of the internal generators (sources) in the NYISO model that are qualified to bid transactions.
  - DER Aggregations that contain Demand Side Resources cannot be a source of an internal bilateral transaction.
  - If you do not select a source name, your bid will not pass the validation check, and an error will be returned.
- b. **Source Org** – Select the Organization that will be the trading hub energy **owner at the source**
- If the selected source is a trading hub generator, you must specify the organization that will be the trading hub energy **owner at the source for this transaction**.
  - **Only organizations qualified to be trading hub energy owners will appear in this pull-down menu.**
  - **If the** selected source is not a trading hub generator, the Source Org pull-down menu will be disabled.
  - **If your selected source is a trading hub, but you have not selected a source org,** your bid will not pass the validation check, and an error will be returned.
- c. **Sink** – Select the load or withdrawal-eligible generator, which is to be the sink:
- The pull-down menu lists the valid sinks that you may select. This list shows all of the internal load buses (sinks) and withdrawal-eligible generators in the NYISO model that are qualified to bid transactions.
  - If you do not select a sink name, your bid will not pass the validation check, and an error will be returned.
- d. **Sink Org** – Select the Organization that will be the trading hub energy **owner at the sink**
- If the selected sink is a trading hub load bus, you must specify the organization that will be the trading hub energy **owner at the sink for this transaction**.
  - **Only organizations qualified to be trading hub energy owners will appear in this pull-down menu.**
  - **If the** selected sink is not a trading hub load bus, the Sink Org pull-down menu will be disabled.

- If your selected sink is a trading hub, but you have not selected a sink org, your bid will not pass the validation check, and an error will be returned.
- e. **User Ref** – This field holds an alphanumeric ID that you assign to the transaction for ease of tracking. It is unique per transaction.
- If you do not enter a User Ref, your bid will not pass the validation check, and an error will be returned.
- f. **Date** – Enter the Date for the bid:
- The Date represents the effective date of the new transaction.
  - The format is mm/dd/yyyy.
  - If you do not enter a date, your bid will not pass the validation check, and an error will be returned.
  - If you enter a date that has already passed, an error will be returned. Transaction bids may be submitted at any time before the day-ahead and real-time markets close.
- g. **Market** – Select one of the following choices from the pull-down menu to define the market that you are bidding into:
- *DAM*
  - HAM*
4. After you have completed entry of the data, select **SUBMIT** and the MIS will check your entries to see if they pass the validation test.
5. Check the results of the validation process that are presented in the Transaction Request display, illustrated in Figure 72, following.

## Scheduling of Internal Transactions

**Figure 72: Internal Transaction Request display**

### Transaction Request - Internal Transactions

| Date<br>05/14/2011 (mm/dd/yyyy)   | Market<br>DAM                                     |   |   |                          |                       |                  |                 |                  |
|---|---|---|---|--------------------------|-----------------------|------------------|-----------------|------------------|
| Note: Changing either of the above two parameters will result in the creation of a new bid without changing the old one. You should only change these parameters if you want to model a new bid on an existing one. |   |   |   |                          |                       |                  |                 |                  |
| Transaction ID<br>9504756   | Nerc Priority<br>FIRM (F-7)<br>User Ref<br>ASER45 | Source<br>ADK HUDSON_FALLS<br>Source Org (Trading Hubs Only)<br>N/A | Sink<br>ACCEMWII_CH_MOHAWKVY<br>Sink Org (Trading Hubs Only)<br>N/A |                          |                       |                  |                 |                  |
| <b>Energy Request (MW)</b><br><input type="button"/> Set For All Hours  |   |   |   |                          |                       |                  |                 |                  |
| TRANSACTION PROFILE   |   |   |   |                          |                       |                  |                 |                  |
| Start Time  | Market  | Energy Request (MW)   | MIS Bid Status  | Select for Submit        | Scheduled Energy (MW) | FRP Confirmation | Buyer Confirmed | Seller Confirmed |
| 00:00   | DAM   |   |   | <input type="checkbox"/> |                       |                  |                 |                  |
| 01:00   | DAM   |   |   | <input type="checkbox"/> |                       |                  |                 |                  |
| 02:00   | DAM   |   |   | <input type="checkbox"/> |                       |                  |                 |                  |
| 03:00   | DAM   |   |   | <input type="checkbox"/> |                       |                  |                 |                  |
| 04:00   | DAM   |   |   | <input type="checkbox"/> |                       |                  |                 |                  |
| 05:00   | DAM   |   |   | <input type="checkbox"/> |                       |                  |                 |                  |
| 06:00   | DAM   |   |   | <input type="checkbox"/> |                       |                  |                 |                  |
| 07:00   | DAM   |   |   | <input type="checkbox"/> |                       |                  |                 |                  |
| 08:00   | DAM   |   |   | <input type="checkbox"/> |                       |                  |                 |                  |
|   |   |   |   |                          | —                     |                  |                 |                  |

6. Note the items in the display that the MIS has presented are truncated for discussion purposes:

- There are more fields in the display than are shown in the picture above, since the schedule information is not relevant when submitting a new transaction bid. These fields are discussed in Section [7.6.2](#) below.
- A profile for 24 hours midnight-to-midnight is presented.
- The MIS assigns a unique transaction ID, which is shown in the Transaction ID field.
- The Starting Time is shown along the left column:
  - The format for the target time is HH:MM, on a 24-hour scale. The first hour is 0 and the last is 23.
  - Both 23-hour and 25-hour days are supported to accommodate the daylight savings time change:
    - On 23-hour days, no entry for hour 02:00 will be shown.
    - On 25-hour days, two entries for hour 01:00 will be shown.

**Note:** For further information on the change between Daylight Savings Time and Standard Time, see Technical Bulletins 64 and 88, respectively. (These documents are available from the

NYISO Web site at the following URL: <https://www.nyiso.com/manuals-tech-bulletins-user-guides>).

7. Complete the transaction profile by entering the following information:

**Note:** The User may use the shortcut field provided. The **Energy Request** field associated with the **Set for All Hours** button will allow the User to quickly enter a constant energy bid for all hours.

- a. **Energy Request (MW)** – Enter the amount of energy for the target hour, expressed in MW over one hour.
8. After you have completed the profile, select **SUBMIT**, and the MIS will check your entries.
  - If the MIS detects an error, an error message will be displayed. The User can click the back button on their Web browser to return to the Transaction Request screen, modify the bid containing the error and resubmit the bids.
  - If the MIS does not detect any errors, the MIS will verify that the submitted bids pass the validation test.

**Note:** You may also elect to **RESET** the entries, which is equivalent to an UNDO in Microsoft.

9. The Transaction Request display will refresh to show the Bid Status for each hour in the profile. Check the results of the validation process. The following are possible statuses that may appear:
  - **VALIDATION FAILED** – The bid has failed the validation check and must be corrected and resubmitted
  - **WAITING CONFIRMATION** – The bid has passed all MIS checks but either the source, sink, or FRP has not been confirmed. The confirmation process is described in Section [7.6.3](#).
  - **VALIDATION PASSED** – The bid has passed all MIS checks and the source, sink, and FRP have been confirmed. The only time this status would show immediately after entering a new transaction is if the Market Participant User entering the transaction is also authorized to confirm on behalf of the FRP, the source and sink.

### ***Transaction Messages***

The User can click on the Bid Status (displayed as a hyperlink) to display a window containing associated validation and/or constraint messages, if any. Lists of all these messages may be viewed as

follows: from the NYISO home page, select OASIS, then select the “Market Access” tab and under the MIS Instructions, select either Validation Messages or Bid Constraint Messages. Figure 73**Error! Reference source not found.**, following, shows several types of transactions, their associated market, and associated messages they would receive as they are processed from submission to either acceptance or rejection. Read down each column for transaction types, associated market or product, and possible MIS messages.

**Figure 73: Transactions and Associated Markets and MIS Messages**

| Transaction Type:                 | a | b | c | d | e | f | g | h | i | j           |
|-----------------------------------|---|---|---|---|---|---|---|---|---|-------------|
| Firm                              | ✓ | ✓ | ✓ | ✓ |   | ✓ | ✓ | ✓ | ✓ | ✓           |
| Non-Firm                          |   |   |   |   | ✓ |   |   |   |   |             |
| Internal NYCA                     | ✓ |   | ✓ |   | ✓ | ✓ |   | ✓ |   |             |
| Wheel through NYCA                |   | ✓ |   | ✓ | ✓ |   | ✓ |   |   |             |
| Export out of NYCA                |   |   | ✓ |   | ✓ |   |   |   | ✓ |             |
| Import into NYCA                  |   |   |   | ✓ | ✓ |   |   |   |   | ✓           |
| Market or product:                |   |   |   |   |   |   |   |   |   |             |
| Day Ahead (DAM)                   | ✓ | ✓ | ✓ | ✓ |   |   |   |   |   |             |
| Hour Ahead (HAM)                  |   |   |   |   | ✓ | ✓ | ✓ | ✓ | ✓ | ✓           |
| Non-Firm (NF)                     |   |   |   |   | ✓ |   |   |   |   |             |
| MIS Messages (in caps):           |   |   |   |   |   |   |   |   |   | <u>note</u> |
| WAITING CONFIRMATION              | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | (1)         |
| VALIDATION FAILED                 | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | (2)         |
| <b>VALIDATION PASSED</b>          | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | (3)         |
| EVALUATING (SCUC)                 | ✓ | ✓ | ✓ | ✓ |   |   |   |   |   | (4)         |
| EVALUATING (Real Time)            |   |   |   |   |   | ✓ | ✓ | ✓ | ✓ | (5)         |
| EVALUATING (NFE)                  |   |   |   |   | ✓ |   |   |   |   | (6)         |
| BID REJECTED based on SPC         | ✓ |   | ✓ |   |   | ✓ |   | ✓ |   | (7)         |
| BID REJECTED based on Dec. bid    |   | ✓ |   | ✓ |   |   | ✓ |   | ✓ | (8)         |
| BID REJECTED based on CC & limits |   |   |   |   | ✓ |   |   |   |   | (9)         |
| <b>ADVISORY ACCEPTED</b>          | ✓ | ✓ | ✓ | ✓ | ✓ |   | ✓ | ✓ | ✓ | (10)        |
| Dispatcher confirmation needed    | ✓ | ✓ | ✓ | ✓ | ✓ |   | ✓ | ✓ | ✓ | (11)        |
| <b>BID ACCEPTED</b>               | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | ✓ | (12)        |
| Copied to HAM                     | ✓ | ✓ | ✓ | ✓ |   |   |   |   |   | (13)        |
| cheduled can be modified          | ✓ | ✓ | ✓ | ✓ |   |   | ✓ | ✓ | ✓ | (14)        |
| ail notification                  | ✓ | ✓ | ✓ | ✓ |   |   | ✓ | ✓ | ✓ | (15)        |

For Description of Possible Transaction Types, See Figure 74, following.

**Figure 74: Description of Possible Transaction Types (a-j)**

| Possible Type | Description   |
|---------------|---|
| A             | Firm, Internal NYCA, DAM  |
| B             | Firm, Wheel through NYCA, DAM   |
| C             | Firm, Export Out of NYCA, DAM   |
| D             | Firm, Import into NYCA, DAM   |
| E             | Non-Firm, Internal NYCA, Wheel through NYCA, Export out of NYCA, Import into NYCA, Non-Firm |
| F             | Firm, Internal NYCA, HAM  |
| H             | Firm, Wheel through NYCA, HAM   |
| I             | Firm, Export Out of NYCA, HAM   |
| J             | Firm, Import into NYCA, HAM   |

The following notes, for Figure 73, provide further information on the message processing:

- (1) Transaction is submitted and needs confirmation.
- (2) Transaction not evaluated if: sink and source are not confirmed, or a NERC tag SCA/PSE/RCA is not valid or capitalized. The PSE name, as approved by NERC, can be alphabetic, numerical, or alphanumeric.<sup>1</sup> *Also:* if the SCA/RCA entered with the NERC tag does not match Source/Sink provided with the MIS bid, or if the NERC tag ID entered with the MIS bid is already in use for another transaction for this hour and market. For this situation, either the other transaction has to be deleted, or ID changed for this to be allowed. Market Participants are asked to call their NYISO Stakeholder Services representative if they feel they received this or any message in error.
- (3) Transaction is to be evaluated if sink, source, and FRP are confirmed.
- (4) Evaluation occurs after DAM closes.
- (5) Evaluation occurs after HAM closes.
- (6) Evaluation of Non-Firms can occurs after either DAM or HAM closes.
- (7) Transaction is rejected if the sink's LBMP is greater than or equal to the Sink Price Cap.
- (8) Transaction is rejected if the source Bus' LBMP is less than the transaction's Decremental Bid submitted.
- (9) Transaction is rejected if the associated congestion cost is greater than zero or there is a physical limitation across an interface.
- (10) For dispatcher confirmation/curtailment.

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<sup>1</sup> Market Participants must notify the NYISO of new PSE names.

- (11) Dispatcher uses Interchange Scheduler program in evaluating external transactions.
- (12) BID ACCEPTED is the final approval for any transaction to be scheduled.
- (13) Only scheduled value is copied from DAM to HAM. A bid, which produces a VALIDATION FAILED message, is not copied since a transaction must have a bid to be valid. However, when a HAM schedule is shown without a HAM bid then this transaction can be identified as one that was copied from the DAM and not submitted directly into the HAM by a User.
- (14) Dispatcher can alter schedules, even to zero megawatts.
- (15) E-mail notification will be sent only if the transaction's schedule is modified.

### ***Transaction Contract Owner & TUC Charge***

The Transmission Customer organization responsible for the Transmission Usage Charge (TUC) associated with a transaction is the organization that initially defines the transaction using the New Transaction display (see Figure 71) in the MIS. This organization is the customer of record for that transaction and the owner of the transaction contract.

As the transaction owner, only that organization, can delete the transaction contract from the MIS by checking the delete box for the contract on the Transaction Contract Review display. A contract cannot be deleted if there are active bids associated with it. Until the contract is deleted in the MIS, the transaction owner retains liability for any TUCs associated with it.

An organization that owns transaction contracts can view a listing of all of those contracts in the MIS. This can be done by selecting the Review Transaction Contracts option on the Transaction Contract Review display in the MIS.

The transaction owner organization can also change the point of contact for receiving information on the contract within its organization to ensure that the appropriate individual is notified of transaction curtailments. This can be done by having the individual who should be the point of contact click the reassign check box on the MIS Transaction Contract Review display and submit the change.

After a transaction has been created, any authorized party can submit transaction bid information on an hourly basis. Submitting bid information does not change transaction ownership.

Changing transaction ownership requires two separate actions, one by the organization that wants to own the transaction and the other by the organization currently owning the transaction. The organization that wants to own the transaction should create a new transaction on the MIS New Transaction display (see Figure 71) with the same Source, the same Sink, and a different User Reference number (User Ref.). After

the details associated with this new transaction are entered on the MIS Internal Transaction Request display and the transaction is accepted, the new organization owns that transaction, as reflected on the MIS Transaction Contract Review display. The original organization should delete the original transaction on the MIS Transaction Contract Review display to prevent inadvertent scheduling and assignment of TUCs.

It is not necessary to create a new contract for different bids. The party scheduling the transactions only needs to use the same transaction User Ref. This is especially important if the transaction involves Grandfathered Rights or selected PURPA contracts. These contracts are identified by their User Ref. for their billing calculations, and the User Ref. should not change without coordination with the NYISO.

Parties who make bilateral contracts between each other should coordinate who initially enters the transaction into the MIS so that the proper party receives the TUC bill.

#### **7.6.2. Review/Change Transaction Bids**

Changes to DAM and HAM transactions are made through identical screens; however, there are some important differences:

- Market Participant Users may be separately authorized to bid/change DAM and HAM Transactions
- Your day-ahead transaction bid changes must be submitted and confirmed by 5 A.M. of the day ahead of the bid date
- Your hour-ahead transaction bid changes must be submitted and confirmed 75 minutes ahead of the bid time.

#### ***Prerequisites***

Before beginning the task of changing transactions bids, you should make sure that the “DAM Transactions” and/or “HAM Transactions,” authorization flag is assigned to your User account.

The confirmation step (discussed later in Section [7.6.3](#)) must be performed by the FRP, authorized user of the source, and/or an authorized user of the sink, unless you are trusted to confirm for the FRP, source and/or sink. .

The steps for reviewing/changing a transaction bid are as follows:



#### ***To review/change a transaction bid***

1. Log in to your User account as outlined in the corresponding procedure on page [102](#).
2. From the User menu frame, choose **Review Transaction**. The Transaction Selection Criteria display is presented, as illustrated in Figure 75, following

**Figure 75: Transaction Selection Criteria display**

**Transaction Selection Criteria**

Reminder: Start Time is required, but Stop Time is optional. If data is submitted with null Stop Time, System will assume Stop Time is one day later than Start Time

|                 |  |             |  |
|-----------------|--|-------------|--|
| Start Time:     | <input type="text"/> (mm/dd/yyyy hh:mi)        | Stop Time:  | <input type="text"/> (mm/dd/yyyy hh:mi)        |
| Transaction ID: | <input type="text"/>                           | Market:     | ALL <input type="button" value="▼"/>           |
| Source ID:      | None Selected <input type="button" value="▼"/> | Sink ID:    | None Selected <input type="button" value="▼"/> |
| User Ref:       | <input type="text"/>                           | Bid Status: | None Selected <input type="button" value="▼"/> |
| Number of Rows: | <input type="text"/>                           |             |  |

3. Enter the following search criteria to retrieve desired transaction bids. At a minimum, a *Start Time* is required:

- a. **Start Time** – Enter the start time for the bid(s) you want to retrieve. The format is mm/dd/yyyy hh:mm (where hh stands for hour using the 24-hour clock). Start Time is a required field.
- b. **Stop Time** – Enter the stop time for the bid(s) you want to retrieve. The format is mm/dd/yyyy hh:mm (where hh stands for hour using the 24-hour clock). Stop Time is not required. If not entered, System will assume Stop Time is exactly 1 day later than the Start Time.
- c. **Transaction ID** – Enter the unique number assigned by the MIS that identifies the transaction that you want to retrieve.
- d. **Market** – Select one of the following choices from the pull-down menu to define the market of the transaction that you want to retrieve:
  - **ALL**
  - **DAM**
  - **HAM**

**Note:** The default is *ALL*.

- e. **Source ID** – Select the generator that is to be the source. The pull-down menu lists the valid sources that you may select.
- f. **Sink ID** – Select the load bus or withdrawal-eligible generator that is to be the sink. The pull-down menu lists the valid sinks that you may select.

- g. **User Ref** – Enter the User ID that identifies the transaction for ease of tracking. It is unique per transaction.
- h. **Bid Status** – Select from the pull-down menu one of the following statuses for the transactions that you want to retrieve (for an explanation, see Reasons to Review Transaction Bids, below):
  - ***None Selected***
  - ***ADVISORY ACCEPTED***
  - ***ADVISORY REJECTED***
  - ***BID ACCEPTED***
  - ***BID REJECTED***
  - ***EVALUATING***
  - ***VALIDATION FAILED***
  - ***VALIDATION PASSED***
  - ***WAITING CONFIRMATION***

**Note:** If you leave this field as *None Selected*, the search program will not use Status in the search criteria.

- i. **Number of Rows** – Enter the maximum number of “hits” that you want to be returned to meet your search criteria. If none is entered, then you could have 500 rows returned.
4. After you have entered the desired the search parameters, activate the **DISPLAY** button. The MIS will submit your request and return a list of the desired records.

**Note:** You may also elect to select **RESET**, which is equivalent to an UNDO in Microsoft.

5. Check the results of the search criteria, which are presented in the Transaction Search Results display (see Figure 76, following):

**Figure 76 : Transaction Search Results display**

| Internal Transaction Bids                 |        |  |           |  |
|---|--------|--|-----------|--|
| TIME                                      | ID     | MIS Status                               | Schedules | Select for Deletion                            |
| Start                                     | Market | Transaction                              | Source    | Sink   |
| Number of rows returned: 0                |        |  |           |  |
| <input type="button" value="SELECT ALL"/> |        | <input type="button" value="CLEAR ALL"/> |           | <input type="button" value="DELETE SELECTED"/> |

- The MIS retrieves all of the transaction bids that meet the search criteria, up to the Maximum Row value that was specified.
- Each bid is shown on a separate line.
- There are navigation buttons at the bottom of the screen:
  - **SELECT ALL** places a check in the *Select for Deletion* column for all of the displayed transaction bids
  - **CLEAR ALL** eliminates all checks in the *Select for Deletion* column for displayed transaction bids
  - **DELETE SELECTED** deletes the transaction bid(s) selected for deletion (as listed in the *Select for Deletion* column)
  - If any bid has been already accepted in either the DAM or HAM, the *Schedules* section of the results display will be populated. This shows you exactly what has been submitted and accepted by the MIS.

6. Select a bid for deletion if this action is desired. If not, proceed to step 8:
  - One or several transaction bids for multiple hours may be deleted by checking the corresponding Delete checkbox (es) in the rightmost column. By choosing the button at the bottom of page shown as **SELECT ALL**, all the transactions shown would be selected for deletion. Then by selecting **DELETE SELECTED** button at the bottom of the display, all transactions that have a check mark would be deleted.
  - Bids may not be deleted if they are in the **EVALUATING** or **ACCEPTED/REJECTED** state.
  - There is no need to delete bids when bids are modified. This feature is only useful if the Market Participant User does not want any bid for a particular interval.
7. To continue with the changing bid process, select the corresponding start date hyperlink in the row of the transaction that you want to change. Doing so will bring the user to the Transaction Request display.

- You cannot make any bid modifications through the Transaction Search Results display, except to delete a transaction bid per Step 6 above; instead, you must execute Step 7, which brings you to the Transaction Request display where modifications can be made.
  - The bid information will be filled in for the transaction bid that you selected
  - At this point, you make your changes and initiate a **SUBMIT** action similar to the procedure for submitting a new external transaction bid, as described earlier.
8. After all your changes have been made, select **SUBMIT** and the MIS will check your entries.
- If the MIS detects an error, an error message will be displayed. The User can click the back button on their Web browser to return to the Transaction Request screen, modify the bid containing the error and resubmit the bids.
  - If the MIS does not detect any errors, the MIS will verify that the submitted bids pass the validation test:

**Note:** You may also elect to **RESET** the entries, which reverts the values back to where they were when they were last saved.

Check the results of the validation process when the Transaction Request display is refreshed with the updated bid status.

### ***Reasons to Review Transaction Bids***

The Transaction Search Results display serves as the primary mechanism for calling up and reviewing the status of your transaction bid before, during, and after the evaluation process. It is incumbent upon you to check your bids as they move through the stages of verification, evaluation, and acceptance or rejection.

The following are sample instances where you might want to check on the status of your transaction bid:

- Before the day-ahead or real-time market closes, you may want to verify that your bids have passed all of the validation checks and that they have been confirmed. If not, actions can be taken prior to market close to get bids to the Validation Passed status so that they will be evaluated (status will be **VALIDATION PASSED**, **WAITING CONFIRMATION**, or **VALIDATION FAILED**)
- After the day-ahead or real-time market closes, you may want to verify that your bids are currently being evaluated (status will be **EVALUATING**)

- After the posting of day-ahead real-time market results, you may want to review whether a portion or all of your ***firm*** transaction bids have been accepted or whether the NYISO could not meet the bid request at this time (status will be ***BID ACCEPTED, ADVISORY ACCEPTED, or BID REJECTED***)

Once submitted, only the FRP will be able to see financial data (bid curve, HAM bid price). Users not authorized to view financial data may still be able to do so if the User's organization has obtained the "View Financial Data Trust" from the FRP.

#### ***View Financial Data Trust***

The FRP is the organization associated with the User who created the Transaction Contract. If an FRP organization wants to allow another organization to see financial data on the transaction bid, they may do so by extending a "View Financial Data Trust" relationship to the other organization (contact NYISO Stakeholder Services to setup this trust relationship). Once this trust relationship is established, any User associated with the trusted organization can view financial data on transaction bids they have with the FRP.

It is important to note that a User from the trusted organization can only view financial data if that User is already authorized to view the transaction. In this case, the User must be an authorized User of the transaction source or transaction sink.

If a User belongs to a trusted organization, but the User is not authorized to view the transaction, the User will not be able to view any component of the transaction bid (including the financial data).

 **Special Notes:** For detailed information on credit evaluation as it relates to Transaction bidding, please see "Transaction Bidding Credit Checks," in Section [7.6.1](#) beginning on page [160](#).

#### **7.6.3. Confirm Transaction Bids**

Since transaction bids involve multiple parties, they must be confirmed by all parties (the FRP, source, and sink) in order to be evaluated by the NYISO. This confirmation must occur prior to the market close.

A User's actions will only be able to change the confirmation status flags they are permitted to affect. A User's ability to affect a particular confirmation status flag is based two things:

- The User's authorization

**Note:** Required authorization is conferred via the DAM/HAM Transaction big flag. For further information on authorizations, please refer to section 4.2, "Roles Related to the Market Information System," beginning on page [35](#).

- Confirmation trust relationships

### ***User's Authorizations***

**FRP** – if the User is an authorized User of the FRP organization and has the "Review Transaction Bids" privilege, the User can affect the FRP confirmation status.

- The "Review Transaction Bids" privilege allows Market Participants to control which user accounts have access to review transaction data to which their Organization is the FRP.

**Source** – if the User is an authorized User of the generator bus on the transaction (meaning that the generator bus is linked to the User's account), the User can affect the source confirmation status.

- If the generator on the transaction is a trading hub, the user must be not only an authorized user of that trading hub generator bus, but also be an authorized user of the Source Org (trading hub energy owner) assigned to the source on the transaction in order to affect the source confirmation status.

**Sink** – if the User is an authorized User of the load bus or withdrawal-eligible generator on the transaction (meaning that the load bus or withdrawal-eligible generator is linked to the User's account), the User can affect the sink confirmation status.

- If the sink on the transaction is a trading hub, the user must be not only an authorized user of that trading hub load bus, but also be an authorized user of the Sink Org (trading hub energy owner) assigned to the sink on the transaction in order to affect the sink confirmation status.

### ***Confirmation Trust Relationship***

Organizations can grant Users of the other parties to the transaction permission to affect their own confirmation status. An organization may be a trust granting organization or a trusted organization.

**Trust granting organization** – the organization that establishes a trust relationship with another organization

**Trusted organization** – the organization that is trusted by the trust granting organization.

Since there are three types of confirmation required for every transaction, there are three types of confirmation trust relationships that can be setup:

- Source confirmation trust
- Sink confirmation trust
- FRP confirmation trust

#### ***Source Confirmation Trust***

The organization that administers a particular generator can establish a source confirmation trust with another organization

If an organization (the trust granting organization) extends a source confirmation trust to another organization (the trusted organization) for a particular generator, then any User associated with the trusted organization can modify the source confirmation status for a transaction where the particular generator is the transaction source

**Note:** If an organization (the trust granting organization) is a trading hub energy owner, that organization may extend a source confirmation trust to another organization (the trusted organization) for a particular trading hub generator. If this trust is established, then any User associated with the trusted organization can modify the source confirmation status for a transaction where the particular trading hub generator is the transaction source **AND** the Source Org is the trust granting organization.

### *Sink Confirmation Trust*

The organization that administers an LSE that is associated with a particular load bus or the organization that administers a particular generator that is withdrawal eligible can establish a sink confirmation trust with another organization.

If an organization (the trust granting organization) extends a sink confirmation trust to another organization (the trusted organization) for a particular load bus or withdrawal-eligible generator, then any User associated with the trusted organization can modify the sink confirmation status for a transaction where the particular load bus or withdrawal-eligible generator is the transaction sink.

**Note:** If an organization (the trust granting organization) is a trading hub energy owner, that organization may extend a sink confirmation trust to another organization (the trusted organization) for a particular trading hub load bus. If this trust is established, then any User associated with the trusted organization can modify the sink confirmation status for a transaction where the particular trading hub load bus is the transaction sink **AND** the Sink Org is the trust granting organization.

### *FRP Confirmation Trust*

FRP confirmations trust relationships are established at an organizational level. The FRP is the organization associated with the User who created the transaction contract associated with the transaction bid. If an organization (the trust granting organization) extends an FRP confirmation trust to another organization (the trusted organization), then any User associated with the trusted organization can modify the FRP confirmation status for a transaction where the FRP is the trust granting organization.

It is important to note that a User from the trusted organization can only modify the confirmation status on a transaction if that User is already authorized to view the transaction. In this case, the User must be an authorized User of the source, sink, or FRP. However, if the source or sink is a trading hub, simply

being an authorized User of the source or sink is not enough to grant access to view a transaction. In order to view a transaction with a trading hub as the source or sink, the user must be an authorized user of the generator/load bus, and the User's organization must be the Source Org/Sink Org on the transaction.

Confirmation trust relationships can be used to modify confirmation statuses manually (via Confirm Transactions) or automatically when a transaction bid is submitted and/or modified. Confirmation trust relationships apply to both transaction bids and MHBT bids.

In order to manually confirm or unconfirm transaction bids for a source, sink, or FRP, or to find out if there are transactions waiting for your confirmation, perform the following steps:



**To Manually Confirm or Unconfirm Transaction Bids for a Source, Sink, or FRP or to Determine Whether Any Transactions Await Your Confirmation**

1. Log in to your User account as outlined in the corresponding procedure on page [102](#).
2. From the User menu frame, choose **Confirm Transactions**. The Transaction Confirmation Selection Criteria display is presented, as illustrated in Figure 77 following.

**Figure 77 : Transaction Confirmation Selection Criteria display**

**Transaction Confirmation Selection Criteria**

Reminder: Start Time is required, but Stop Time is optional. If data is submitted with null Stop Time, System will assume Stop Time is one day later than Start Time

|  |   |
|--|---|
| Start Time: <input type="text"/> (mm/dd/yyyy hh:mi)                                | Stop Time: <input type="text"/> (mm/dd/yyyy hh:mi)                                |
| Transaction ID: <input type="text"/>   | Market: <input type="text"/> ALL <input type="button" value="▼"/>                 |
| Source ID: <input type="text"/> None Selected <input type="button" value="▼"/>     | Sink ID: <input type="text"/> None Selected <input type="button" value="▼"/>      |
| User Ref: <input type="text"/>   | Bid Status: <input type="text"/> None Selected <input type="button" value="▼"/>   |
| Seller Status: <input type="text"/> None Selected <input type="button" value="▼"/> | Buyer Status: <input type="text"/> None Selected <input type="button" value="▼"/> |
| FRP Status: <input type="text"/> None Selected <input type="button" value="▼"/>    | Number of Rows: <input type="text"/>  |
| <input type="button" value="DISPLAY"/> <input type="button" value="RESET"/>        |   |

3. Enter the following query information to define the search criteria for retrieving the desired transaction:
  - a. **Start Time** – Enter the start date and time for the group of transaction bids you want to retrieve. The format is mm/dd/yyyy hh:mm. This value is required.
  - b. **Stop Time** – Enter the stop date and time for the group of transaction bids that you want to retrieve. The format is mm/dd/yyyy hh:mm. If no Stop Time is entered, System will assume Stop Time is exactly 1 day after Start Time.

- c. **Transaction ID** – Enter the unique number assigned by the MIS that identifies the transaction that you want to retrieve.
- d. **Market** – Select one of the following choices from the pull-down menu to define the market of the transaction that you want to retrieve:
  - ***ALL***
  - ***DAM***
  - ***HAM***

**Note:** The default is ***ALL***.

- e. **Source ID** – Select the generator that is to be the source. The pull-down menu lists the valid sources that you may select.
- f. **Sink ID** – Select the load bus or withdrawal-eligible generator that is to be the sink. The pull-down menu lists the valid sinks that you may select.
- g. **User Ref** – Enter the User ID that identifies the transaction for ease of tracking. It is unique per transaction.
- h. **Bid Status** – Select from the pull-down menu one of the following statuses:

- ***None Selected***
- ***VALIDATION PASSED***
- ***WAITING CONFIRMATION***

Validation Failed Bids cannot be confirmed and are not part of the pull down options. For Validation Failed bids, the bid must be resubmitted to acquire a bid status of Validation Passed or Waiting Confirmation. Once this is achieved, the bid can be retrieved via the Transaction Confirmation Selection Criteria form.

- i. **Seller Status** – Select from among the following seller confirmation statuses:
  - ***None Selected***
  - ***Confirmed***
  - ***Not Confirmed***

**Note:** The default is ***None Selected***.

- j. **Buyer Status** – Select from among the following buyer confirmation statuses:
  - ***None Selected***

- **Confirmed**
- **Not Confirmed**

**Note:** The default is *None Selected*.

k. **FRP Status** – Select from among the following buyer confirmation statuses:

- **None Selected**
- **Confirmed**
- **Not Confirmed**

**Note:** The default is *None Selected*

l. **Number of Rows** – Enter the maximum number of “hits” you want to be returned that meet your search criteria. If none is entered, then 500 rows could be returned.

4. After you have completed entry of the search criteria, select **DISPLAY** and the MIS will submit your request and return a list of the desired records.
5. Check the results of the search criteria, which are presented in the Confirm Transactions display, illustrated in Figure 78, following.

**Figure 78: Confirm Transactions display**

| Confirm Transactions  |        |                |                      |          |             |           |               |           |                   | Page Ref. H-7            |
|---|--------|----------------|----------------------|----------|-------------|-----------|---------------|-----------|-------------------|--------------------------|
| Reminder: Only bold values with a yellow background in the 'Confirmed' columns can be updated |        |                |                      |          |             |           |               |           |                   |                          |
| Start Time  | Market | Transaction Id | Bid Status           | User Ref | Source      |           | Sink          |           | Select for Submit |                          |
|   |        |                |                      |          | Name        | Confirmed | Name          | Confirmed |                   |                          |
| 12/14/2014 02:00 EST  | DAM    | 12345668       | VALIDATION PASSED    | TEST123  | SAMPLE_____ | <b>Y</b>  | SAMPLE_1 WEST | <b>Y</b>  | <b>Y</b>          | <input type="checkbox"/> |
| 12/14/2014 02:00 EST  | DAM    | 12345668       | WAITING CONFIRMATION | TEST234  | SAMPLE_____ | N         | SAMPLE_1 WEST | N         | <b>Y</b>          | <input type="checkbox"/> |

Number of rows returned: 2

The MIS retrieves all of the transaction bids that meet the search criteria, up to the Maximum Row value that was specified:

- Each transaction bid is shown on a separate line.
- Each row contains the current Source, Sink and FRP Confirmation Status:
  - **Source Confirmed** – Identifies whether the source has been confirmed.
  - **Sink Confirmed** – Identifies whether the sink has been confirmed.

- **FRP Confirmed** – Identifies whether the FRP has been confirmed.
  - Each confirmation status flag that can be affected by the User is listed in bold with a yellow background.
  - Confirmation status listed in plain font with a white background signifies that you cannot affect that confirmation status.
  - If the User confirms or unconfirms a transaction bid, they will modify **ALL** of the confirmation statuses they are able to affect. (For example, if a User can affect the FRP and Seller Confirmation statuses, the User cannot modify just the FRP confirmation status. The User would modify both the FRP and Seller confirmations.)
6. View confirmation statuses and initiate a confirm or unconfirm action for those confirmation statuses that you are able to affect. The following mechanisms are used to accomplish this task:
- **Select For Submit** – Place a check in this column for each transaction whose confirmation statuses the User wants to modify.
  - **Confirm Button** – By clicking the confirm button, the confirmation flags (for each type of confirmation status the User is authorized to modify) for each transaction with a check in the ‘Select for Submit’ column will be set to **Y**.
  - **Unconfirm Button** – By clicking the unconfirm button, the confirmation flags (for each type of confirmation status the User is authorized to modify) for each transaction with a check in the ‘Select for Submit’ column will be set to **N**.
  - Other Navigation Buttons:
    - **SELECT ALL** – Places a check in the **Select for Submit** column in each row
    - **CLEAR ALL** – Removes all checks from the **Select for Submit** column

#### **7.6.4. Review Trading Hub Summary**

The Trading Hub summary menu is available to any user who is authorized to bid transactions, but is applicable only if the user is engaged in trading hub transaction bidding.

The steps for reviewing trading hub transaction summary are outlined following.

#### **To review trading hub transaction summary**

1. Log in to your User account as outlined in the corresponding procedure on page 102.

- From the User menu frame, choose **Trading Hub Summary**. The Trading Hub Summary Selection Criteria display is presented, as illustrated in Figure 79, following.

**Figure 79: Trading Hub Summary Selection Criteria display**

#### *Trading Hub Summary Selection Criteria*

Reminder: Start Time is required, but Stop Time is optional. If data is submitted with null Stop Time, System will assume Stop Time is one day later than Start Time

|   |  |            |   |
|---|--|------------|---|
| Start Time:   | <input type="text"/> (mm/dd/yyyy hh:mi)        | Stop Time: | <input type="text"/> (mm/dd/yyyy hh:mi) |
| Market:   | <input type="button" value="DAM ▾"/>           |            |   |
| Trading Hub Zone:   | <input type="button" value="None Selected ▾"/> |            |   |
| <input type="button" value="DISPLAY"/> <input type="button" value="RESET"/> |  |            |   |

- Specify search criteria to retrieve the desired transaction bids. At a minimum, a *Start Time* is required:

- Start Time** - Enter the start time for the activity you want to retrieve. The format is mm/dd/yyyy hh:mm (where hh stands for hour using the 24-hour clock). Start Time is a required field.
- Stop Time** - Enter the stop time for the activity you want to retrieve. The format is mm/dd/yyyy hh:mm (where hh stands for hour using the 24-hour clock). Stop Time is not required. If not entered, the system will assume a Stop Time exactly 1 day later than the Start Time.
- Market** - Select one of the following choices from the pull-down menu to define the market of the trading hub activity that you want to retrieve:
  - **DAM**
  - **HAM**

**Note:** The default is DAM.

- **Trading Hub Zone** - Select the internal NYISO Zone from the pull-down menu to define the zone of the trading hub activity that you want to retrieve. Trading Hub Zone is not required. If not entered, trading hub activity for all zones will be returned.

**Note:** The default is *None Selected*.

- After you have entered the desired search parameters, activate the **DISPLAY** button. The MIS will submit your request and return a list of the desired records.

**Note:** You may also elect to select **RESET**, which is equivalent to an UNDO in Microsoft.

5. Check the results of the search criteria, which are presented in the Trading Hub Summary Results display (see Figure 80, following):

**Figure 80: Trading Hub Summary Results display**

**Trading Hub Summary Results**

| Trading Hub Transaction Activity:  |        |                      |                             |                              |     |                      |                 |
|------------------------------------|--------|----------------------|-----------------------------|------------------------------|-----|----------------------|-----------------|
| Txn ID                             | Market | Date/Hr              | Source                      | Sink                         | MW  | Bid Status           | Balanced Status |
| 8113160                            | DAM    | 08/12/2009 00:00 EDT | DUNMOD_GEN_HUB              | ABCLOADBUS_NM_WEST           | 15  | WAITING CONFIRMATION | N/A             |
| Trading Hub Energy Owner Position: |        |                      |                             |                              |     |                      |                 |
| CAPITL                             |        |                      |                             |                              |     |                      |                 |
| Txn ID                             | Market | Date/Hr              | Source                      | Sink                         | MW  | Bid Status           | Balanced Status |
| 8113170                            | DAM    | 08/19/2009 00:00 EDT | CAPITAL_GEN_HUB (Acme, Inc) | ABCLOADBUS_NM_WEST           | -20 | VALIDATION PASSED    | BALANCED        |
| 8113168                            | DAM    | 08/19/2009 00:00 EDT | XYZGEN_COGEN                | CAPITAL_LOAD_HUB (Acme, Inc) | 20  | VALIDATION PASSED    | BALANCED        |
|                                    |        |                      |                             |                              |     | Total: 0             |                 |
| CENTRL                             |        |                      |                             |                              |     |                      |                 |
| Txn ID                             | Market | Date/Hr              | Source                      | Sink                         | MW  | Bid Status           | Balanced Status |
| 8113158                            | DAM    | 08/12/2009 00:00 EDT | XYZGEN_COGEN                | CENTRAL_LOAD_HUB (Acme, Inc) | 15  | WAITING CONFIRMATION | NOT_APPLICABLE  |
|                                    |        |                      |                             |                              |     | Total: 15            |                 |

- The MIS organizes the results into two tables:
  - **Trading Hub Transaction Activity** shows all trading hub transactions for which your organization is not a trading hub energy owner (neither the Source Org nor the sink Org).
  - **Trading Hub Energy Owner Position** shows the net megawatt position for a trading hub energy owner for each market, zone, and hour. Only transactions for which your organization is a trading hub energy owner (either the Source Org or the Sink Org) will be included in this table.

**Note:** A trading hub energy owner must have a balanced position by sinking the same amount of megawatts as it sources for a given market/zone/hour combination. If, by the close of the market, the trading hub energy owner does not have a balanced position, none of its trading hub transactions in that market/zone/hour combination will be scheduled. The Trading Hub Summary Results tables show Market Participants the balanced status of each of their trading hub transactions. A status of **BALANCED**, means that the trading hub energy owner has a balanced position for the market/zone/hour combination in which the transaction bid is associated. A status of **N/A**, that means that the transaction is not fully confirmed, and thus cannot contribute to a trading hub energy owner's balanced position. A status of **UNBALANCED**, that means that the trading hub energy owner does not have a balanced position for the market/zone/hour combination in which the transaction bid is associated, and that if nothing changes, the bid will not get scheduled.

## 7.7. Virtual Bidding

### 7.7.1. Registration Requirements

All current and prospective NYISO Customers planning to participate in Virtual Transactions must ensure the NYISO receives a correctly completed registration packet a minimum of sixty (60) days prior to participation. To register, both current and prospective NYISO Customers must request the customer registration packet per the instructions located on the NYISO Web site at:

<https://www.nyiso.com/support>

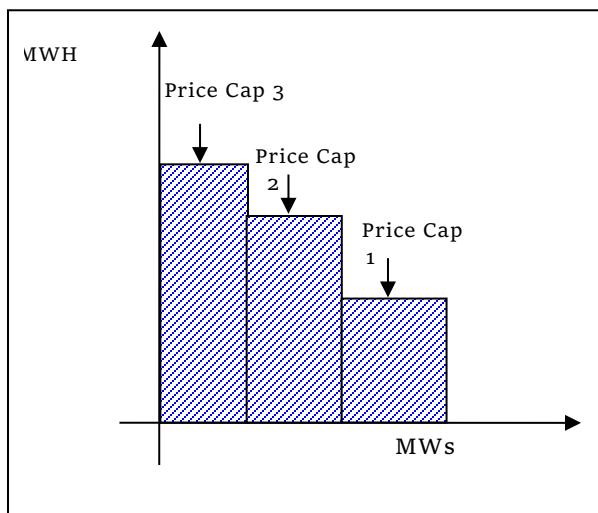
### 7.7.2. Introduction to Virtual Bidding

Virtual Bidding is the submission of bids for the financial purchase or sale of energy, rather than or in addition to the physical delivery or purchase of energy in the NYISO-administered energy markets. Virtual Bidding enables qualified NYISO Customers to:

- buy energy (Virtual Load) in the DAM at day-ahead prices and sell it in the Real-Time (RT) Market at real-time prices and;
- sell energy (Virtual Supply) in the DAM at day-ahead prices and buy energy to cover the sale in the RT market at real-time prices (Virtual Supply).

Virtual Load and Virtual Supply transactions are financial transactions only and have no effect on real time physical energy consumption.

**Figure 81: Virtual Load Bids**

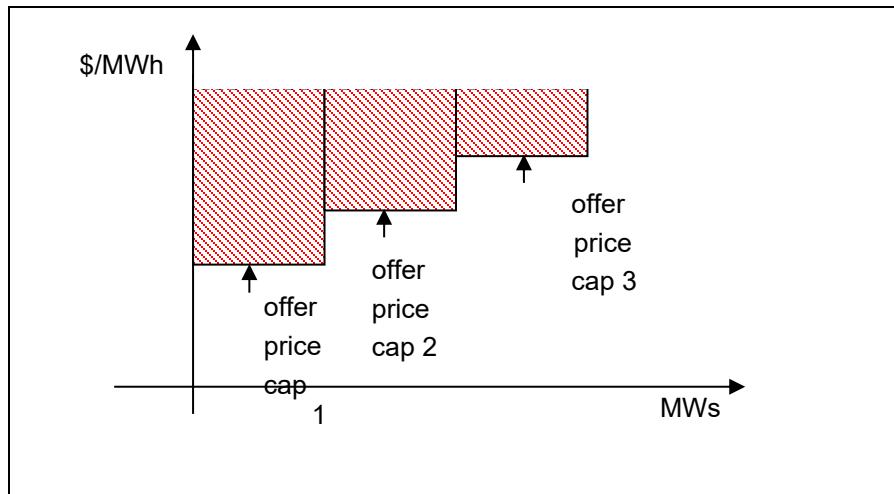


### **Virtual Load Bidding**

A Virtual Load bid is an offer in the DAM to acquire a specific amount of energy, for a particular hour, in a specific NYCA zone, at or below a specific price. A Virtual Load differs from a physical load because the bidding entity does not intend to consume the energy it seeks to buy in the DAM; rather, the bidder intends to sell the energy in the RT market. In RT the physical load will consume energy (to the extent that it has not over-bid in the DAM), whereas the Virtual Load will not actually consume energy. A physical load that buys more energy in the DAM than it consumes in RT is indistinguishable in its effects from a Virtual Load.

Virtual Load must be bid in the DAM as zonal price-capped load. Virtual Load offers for up to three price-capped energy blocks may be bid per zone for each hour of the day. The Virtual Load bidder must specify the amount of energy it is willing to purchase and the maximum amount that it is willing to pay for that energy for each block of energy desired. The Virtual Load will purchase the block(s) of energy if the day-ahead zonal market-clearing price is equal to or less than the bid price cap(s) specified. Figure 81 above graphically illustrates the three price dependent bids to purchase energy.

**Figure 82: Virtual Supply Bids**



### **Virtual Supply Bidding**

A Virtual Supply bid is an offer in the DAM to supply a specific amount of energy, for a particular hour, in a specific NYCA zone, at or above a specific price. A Virtual Supply bid differs from a physical generation bid because the bidding entity will not generate the energy it seeks to sell in the DAM; rather, the bidder intends to buy the energy in the RT market to fulfill its supply obligation. The Virtual Supplier cannot provide ancillary services and does not qualify for ICAP payments.

Virtual Supply must be offered in the DAM as zonal price-capped blocks of energy and up to three price-capped blocks may be offered per zone for each hour of the day. The Virtual Supplier will sell the block(s) of energy if the day-ahead zonal market-clearing price is equal to or greater than the offer price. Figure 82 graphically illustrates the three price dependent offers to sell energy.

Virtual Supply and Virtual Load bids may not be combined as a single bid. Each will have a separate bid form.

### ***Physical Load and Physical Supply Bidding***

Existing bidding rules for physical load and physical supply are not affected by the virtual load and virtual supply bidding rules outlined here.

### ***Virtual Bidding Credit Checks***

All submitted Virtual Bids that receive a bid status of ***Validation Passed*** will be subject to a Virtual Bid credit evaluation

Upon bid submittal, ***Validation Passed*** bids will be associated with the following bid message: "Validation Passed Subject to Credit Evaluation." Approximately every 15 minutes, the NYISO will execute a batch credit evaluation. This evaluation will analyze all submitted Virtual Bids (load and supply) that are both associated with the bid message referenced above and have been submitted since the start of the previous batch credit evaluation. Credit evaluations will analyze the sum of the Price Cap MW values associated with each bid and multiply this sum by a NYISO determined Price Delta. The employed Price Delta depends on the zone associated with the bid as well as the bid's bid time. Exact Price Delta data is published by the NYISO at the following location:

<https://www.nyiso.com/documents/20142/2216170/VirtualBidPriceDifferentialMatrix.pdf/93600218-f82a-b533-9b7e-f561255e3ebe>

The batch credit evaluation will analyze all bids associated with a Billing Organization as a group. If it is determined that the Organization has sufficient allocated credit (for the Virtual Markets) to cover the credit exposure associated with all of the submitted bids analyzed by the batch, all of the submitted bids will pass the Credit Check. Under this scenario, each bid will continue to have a bid status of ***Validation Passed*** but the bids will no longer be associated with the "Validation Passed Subject to Credit Evaluation" bid message.

If the batch credit evaluation determines the Organization does not have sufficient allocated credit (for the Virtual Markets) to cover the credit exposure associated with all of the submitted bids analyzed by the batch, all of the submitted bids will fail the Credit Check. Under this scenario, each bid's bid status will be

modified to ***Validation Failed***. In addition, each bid will be associated with the following bid message: "Validation Failed due to insufficient credit."

Bids with a bid status of ***Validation Failed*** can be resubmitted. Once the bid is resubmitted, it will once again be evaluated by the next scheduled batch credit evaluation.

Note that bids submitted right before the DAM close will still be subject to a batch credit evaluation.

### ***Checking the Final Status of Virtual Load and Virtual Supply Bids***

The Security Constrained Unit Commitment software evaluates all valid bids following the close of the DAM. During the evaluation, the Bid Status will be listed as ***Evaluating***. Following the evaluation process the results of the DAM process are posted to the bids forms as ***Bid Accepted*** or ***Bid Rejected*** in the Bid Status field. Bidders may check the status of the submitted bids by repeating steps 1 through 3 of the procedure for entering virtual load or virtual supply bids, Section 7.7.3, below. A ***Bid Accepted*** status indicates that the bid for that hour has been accepted, the credit is held, and the schedule for that hour is displayed in the **Schedule** field in the **Price Cap** column. A ***Bid Rejected*** status means that the bid was not accepted, the credit was released, and no energy was purchased or sold in the DAM for that hour.

#### **7.7.3. Submitting Virtual Bids in the Day-Ahead Market**

The submission of virtual load and virtual supply bids requires that the bidder be registered with the NYISO to place virtual bids. For information pertaining to registration requirements, see Section 7.



#### **To Enter Virtual Load or Virtual Supply Bids via the Interactive MIS Bid Screens**

1. Log in to your User account as outlined in the corresponding procedure on page 102.
2. From the User Menu frame, choose **Virtual Load Bids** or **Virtual Supply Bids** as appropriate. Enter the following query information to set up the template for entering the virtual load (see Figure 83) or virtual supply (see Figure 84) bids:
  - Select the name of the virtual load or virtual supply bus for which you want to submit a bid. The drop-down menu lists the virtual busses for which you are authorized to enter bids. Only one virtual load or virtual supply bus name may be selected.
  - Enter the date for the 24-hour period that you wish to enter a bid for. The date represents the effective date of the bid. The date format is mm/dd/yyyy.

3. Select **Display** to access the Virtual Load (see Figure 83) or Virtual Supply (see Figure 84) Bid Display. This selected screen will be automatically populated with the appropriate date and virtual bus name information.

**Figure 83: Virtual Load Bid Selection Criteria display**

Virtual Load Bid Selection Criteria

Virtual Load Name:  Select the desired virtual load bus name from the drop-down menu

Date:  (mm/dd/yyyy)  
Enter the date that the bid is to be effective

Click DISPLAY to proceed to the Virtual Load Bid display

Page Ref: F-5-VL

**Figure 84: Virtual Supply Bid Selection Criteria display**

Virtual Supply Bid Selection Criteria

Virtual Supply Name:  Select the desired virtual supply bus name from the drop-down menu

Date:  (mm/dd/yyyy)  
Enter the date that the bid is to be effective

Click DISPLAY to proceed to the Virtual Supply Bid display

Page Ref: F-5-VS

4. Enter the Virtual Load Bid or Virtual Supply Bid, as applicable, using the following as a reference in doing so:

- ***Entering a Virtual Load Bid***

The Virtual Load Bid display (see Figure 85) enables the bidder to enter Virtual Load bids for all hours of the day, beginning with hour beginning 00:00 and ending with hour beginning 23:00. Virtual Load bids for each hour are entered in the fields identified as "Price Cap #1," Price Cap #2, and Price Cap #3. In these fields you should enter the MW and \$/MW values that define the price that you are willing to pay for the desired increments of virtual load. The price bid for each successive price cap must be higher than the preceding price cap. The price capped Virtual Load bids are accepted as follows:

- If the LBMP at the selected virtual load bus is below the \$/MW value bid as Price Cap #1, then an amount of Virtual Load equal to the sum of Price Cap #1, Price Cap #2 and Price Cap #3 are purchased.
- If the LBMP at the virtual load bus is between the \$/MW value bid as Price Cap #1 and Price cap #2, then an amount of virtual load equal to the sum of Price Cap #2 and Price Cap #3 are purchased.
- If the LBMP at the virtual load bus is between the \$/MW value bid as Price Cap #2 and Price Cap #3, then an amount of virtual load equal to that specified for Price Cap #3 is purchased.
- If the LBMP at the virtual load bus is greater than the \$/MW value bid as Price Cap #3, then no virtual load is purchased.
- The default values for these fields are null.

**Figure 85: Virtual Load Bid display**

| Virtual Load Bid                 |                      |                      |                               |                      |                      |                      |                      |                      |                      |                      |
|----------------------------------|----------------------|----------------------|-------------------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| Virtual Load Name: SAMPLE_VL_BUS |                      |                      | Date: 11/11/2007 (mm/dd/yyyy) |                      |                      |                      |                      |                      |                      |                      |
| Time                             | Price Cap #1         |                      | Price Cap #2                  |                      | Price Cap #3         |                      | Bid Status           | Schedule             |                      |                      |
|                                  | MW                   | \$/MW                | MW                            | \$/MW                | MW                   | \$/MW                |                      | Price Cap            | Inter Fixed MW       | Inter Price Cap MW   |
| 00:00                            | <input type="text"/> | <input type="text"/> | <input type="text"/>          | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 01:00                            | <input type="text"/> | <input type="text"/> | <input type="text"/>          | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 02:00                            | <input type="text"/> | <input type="text"/> | <input type="text"/>          | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 03:00                            | <input type="text"/> | <input type="text"/> | <input type="text"/>          | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 04:00                            | <input type="text"/> | <input type="text"/> | <input type="text"/>          | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 05:00                            | <input type="text"/> | <input type="text"/> | <input type="text"/>          | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| 06:00                            | <input type="text"/> | <input type="text"/> | <input type="text"/>          | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

- **Entering a Virtual Supply Bid**

The Virtual Supply Bid display (see Figure 86) enables the bidder to enter virtual supply bids for all hours of the day, beginning with hour beginning 00:00 and ending with hour beginning 23:00. Virtual supply bids for each hour are entered in the fields identified as “Price Cap #1,” Price Cap #2, and Price Cap #3. In these fields you should enter the MW and \$/MW values that define the price that you are willing to accept for the desired increments of virtual supply. The price offered for each successive price

capped bid must be higher than the preceding price cap. The price capped virtual supply bids are accepted as follows:

- If the LBMP at the virtual supply bus is above the \$/MW value bid as Price Cap #3, then an amount of virtual supply equal to the sum of Price Cap #1, Price Cap #2 and Price Cap #3 are sold.
- If the LBMP at the virtual supply bus is between the \$/MW value bid as Price Cap #3 and Price Cap #2, then an amount of virtual supply equal to the sum of Price Cap #1 and Price Cap #2 are sold.
- If the LBMP at the virtual supply bus is between the \$/MW value bid as Price Cap #2 and Price Cap #1, then an amount of virtual supply equal to that specified for Price Cap #1 only is purchased.
- If the LBMP at the virtual supply bus is less than the \$/MW value bid as Price Cap #1, then no virtual supply is sold.
- The default values for these fields are null.

**Figure 86: Virtual Supply Bid display**

| Time  | Price Cap #1 |       | Price Cap #2 |       | Price Cap #3 |       | Bid Status | Schedule  |                |                    |
|-------|--------------|-------|--------------|-------|--------------|-------|------------|-----------|----------------|--------------------|
|       | MW           | \$/MW | MW           | \$/MW | MW           | \$/MW |            | Price Cap | Inter Fixed MW | Inter Price Cap MW |
| 00:00 |              |       |              |       |              |       |            |           |                |                    |
| 01:00 |              |       |              |       |              |       |            |           |                |                    |
| 02:00 |              |       |              |       |              |       |            |           |                |                    |
| 03:00 |              |       |              |       |              |       |            |           |                |                    |
| 04:00 |              |       |              |       |              |       |            |           |                |                    |
| 05:00 |              |       |              |       |              |       |            |           |                |                    |
| 06:00 |              |       |              |       |              |       |            |           |                |                    |

5. When the Virtual Load or Virtual Supply bid form is complete, activate the **Submit** button (located at the bottom of the display) to submit the bid.
  - If the MIS detects an error, an error message will be displayed. The User can click the back button on their Web browser to return to the Virtual Load Bid/Virtual Supply Bid screen, modify the bid containing the error and resubmit the bids.

- If the MIS does not detect any errors, the MIS will immediately check the validity of the bid and automatically refresh the display indicating the status of the bid. An immediate indication of **Validation Passed** or **Validation Failed** will appear in the Bid Status field.
  - If the status is **Validation Passed**, then the bid has passed the screening to determine if all required data has been entered.
  - If the status is **Validation Failed**, then the bid has either incorrect or missing data and you must review the display, correct any errors or omissions, and re-submit.
  - The Bid Status of each individual hour must be checked to verify that the bid has passed the Validation Test for each hour for which a bid was submitted.

#### **Special Notes**

For detailed information on credit evaluation as it relates to virtual bidding as well as the credit-related implications of validation designations, please see "Virtual Bidding Credit Checks," beginning on page [185](#).

For information on the final status of virtual supply and virtual load bids, including instructions for checking such status, please see "Checking the Final Status of Virtual Load and Virtual Supply Bids," beginning on page [186](#).

For instructions on changing previously submitted virtual bids, see Section [7.7.4](#), immediately following.

#### **7.7.4. Changing a Virtual Load or Virtual Supply Bid**

Virtual load and virtual supply bids may be changed at any time up to the DAM closing time of 5 A.M. for the day that the bid is to be effective.



#### **To Access Previously Submitted Virtual Bid Information**

1. Log in to your User account as outlined in the corresponding procedure on page [102](#).
2. From the User Menu frame, choose **Virtual Load Bids** or **Virtual Supply Bids** as appropriate.
3. From the Virtual Load Bid Selection Criteria display (see Figure 83) or the Virtual Supply Bid Selection Criteria display (see Figure 84), do the following:
  - Select the name of the virtual load or virtual supply bus for the bid you want to change. The drop-down menu lists the virtual busses for which you are authorized to enter bids. Only one virtual load or virtual supply bus name may be selected.
  - Enter the date for the 24-hour period for which you want to change a bid . The date represents the effective date of the bid. The date format is: mm/dd/yyyy.

4. Activate the **Display** button to access the Virtual Load Bid display (see Figure 85) or Virtual Supply Bid display (see Figure 86).

This will display the previously submitted bid information for the selected date and virtual bus. Changes may be made and resubmitted on this display. Upon submission of the revised bid information the MIS will respond with the **Bid Status**.

 **Special Notes:** Updated bids will be evaluated by the next scheduled batch credit evaluation.

For detailed information on credit evaluation as it relates to virtual bidding, as well as the credit-related implications of validation designations, please see "Virtual Bidding Credit Checks," beginning on page [185](#).

For information on the final status of Virtual Supply and Virtual Load Bids, including instructions for checking such status, please see "Checking the Final Status of Virtual Load and Virtual Supply Bids," beginning on page [186](#).

#### 7.7.5. Load Supply Virtual Bids via the Upload/Download Batch Procedure

This section assumes a prior knowledge of the NYISO Upload/Download Batch Procedures. For additional information, please refer to Section 8 of this document.

The Upload/Download Batch Procedure requires that all information for a bid be pre-packaged into files, which are then submitted electronically to the NYISO MIS. Similarly, the MIS packages all responses into a file, which is then retrieved by the bidder. This interface provides for the quick and efficient transfer of large amounts of bid and schedule data between NYISO Customers and the NYISO.

The data that is prepared by the bidder or that is returned to the bidder by the MIS in response to a bid or query is a text file consisting of multiple records, each with one or more comma separated value fields. This type of file is known as comma separated value, or CSV.

The Upload/Download Batch process supports the following virtual bidding functions:

- Virtual bidders can submit bids for virtual load and/or virtual supply
- MIS responds to the bids
- Virtual bidders can query the MIS to obtain the status of virtual bids submitted
- MIS responds to the query
- Virtual bidders can delete a bid
- MIS responds to the deletion

The Upload/Download template used to submit both virtual load and virtual supply bids is defined in Section [8.2.3](#) of this Guide. As with the bid screens described previously, the load data submission parameters template includes fields that are not used in virtual bidding. These fields are left blank in the CSV file and include:

|                                  |                                |
|----------------------------------|--------------------------------|
| <b>Forecast MW</b>               | <b>Fixed MW</b>                |
| <b>Interruptible Type</b>        | <b>Interruptible fixed MW</b>  |
| <b>Interruptible fixed cost</b>  | <b>Interruptible capped MW</b> |
| <b>Interruptible capped cost</b> |                                |

**Note:** The “Submit Loads Data Dictionary,” defined in Section [8.2.3](#) of this Guide, is used to support both virtual load and virtual supply bids.

Virtual load, virtual supply, and physical load bids may be mixed in the same upload file. The identity of the bus, not the format of the data, determines if the bid is for virtual load, virtual supply, or physical load.

To change a bid the bidder repeats the process described above, submitting the revised bid data.

To delete a bid submitted via the Upload/Download Batch Procedure the *Delete Load Bids* template is used. This template is defined in Section [8.2.6](#) of this Guide and supports the deletion of the specified virtual load or virtual supply bid.

#### ***Virtual Bid Credit Status***

When a virtual bid is submitted via the upload/download process, the upload response will include each bid's bid status and any associated bid messages. Bids with a bid status of **Validation Passed** will be associated with the following bid message: "Validation Passed Subject to Credit Evaluation."

 **Special Notes:** For detailed information on credit evaluation as it relates to virtual bidding, as well as the credit-related implications of validation designations, please see "Virtual Bidding Credit Checks," beginning on page [185](#).

In order to view the results of a batch credit evaluation via the upload/download application, execute a Load Bids and Schedules download. This template is defined in Section [8.3.4](#) of this Guide and supports the ability to view a submitted virtual bid's bid status and associated bid messages.

#### ***Downloading Virtual Load and/or Virtual Supply Schedules***

To download the Day-Ahead schedule for accepted Virtual Load and/or Virtual Supply bids refer to Section [8.3.4](#) of this Guide. In addition, this download can be executed to view information regarding Virtual Load and/or Virtual Supply bids that have been submitted but not yet evaluated by SCUC.

## 8. Upload/Download Batch Procedures

### 8.1. Introduction

This section describes an interactive method for entering and receiving data into NYISO MIS, including submitting bids and reviewing schedule information after markets settle. The method is based on the use of interactive Web Browser technology.

This section describes the equivalent functionality using an application program interface developed by the Market Participant. This method requires that all information is prepackaged into files, which are then sent to the NYISO MIS. Similarly, on return, the MIS packages all responses into a file, which is then retrieved by the Market Participant.

This interface is provided for quick, efficient transfer of large amounts of data between NYISO Customers and NYISO. The method is particularly suitable when NYISO Customers already have the data required by the MIS in electronic format, or are planning to develop applications to create such data.

The Market Participants should also review Section 7 to better visualize the information that is exchanged with the MIS.

#### ***CSV File***

The data that is prepared by the Market Participant or is returned by the MIS in response to Market Participant's submittal or query is a text file consisting of multiple records, each with one or more comma separated value fields. This type of file is known as comma separated value, or CSV.

#### ***Templates***

We describe each type of data as a template; e.g., generator bid/response template or generator query/response template:

- Data submission and the corresponding responses are described in the Upload Templates section ([Section 8.2](#)).
- Queries and the corresponding responses are described in the Download Templates section ([Section 8.3](#)).

Responses to uploads are automatic; i.e., the Market Participant does not have to issue a query after submitting a bid to get a response with information about the status of the bid.

### ***Access to Public Information***

Public information such as NYISO load forecast, ATC/TTC values, LBMP prices, etc. are not accessible through the upload/download templates. Instead, this information is accessible through the MIS. From the NYISO home, select **OASIS**; links to this information is through one of the seven tabs appearing at the top of the page. This process and available links are described in Section 5 of this document.

### ***File Exchange versus Data Stream***

We describe the upload/download interface in terms of file exchanges. However, although this information may be an actual file on the client side (where Market Participant prepares and submits information), it is received on the server side (where the MIS functions reside) as a stream, and then processed and stored into a database. Thus, on the MIS side it is not stored as a file.

It is likely that some Market Participants will actually develop their own applications to output the information as a stream instead of creating the file first. The template information is described as if it was a file only because it simplifies the explanation, and because streams are often stored in files.

### ***Data Commit Logic***

The NYISO's MIS initial file validation logic looks at the entire submitted file for the existence of an error. If there are any errors during the initial validation (denoted with an error code beginning with "UPD"), the entire file is rejected and no data is committed to the system. For example, if row#781 of an upload file contains an error, the system will return an error for row#781, and no other rows from the file are committed to the system.

After initial file validation, which occurs on the entire file at once, NYISO's MIS business rule validation logic then checks for business rule violations in collections of 250 rows at a time. The collection will be committed to the system only after all rows in the collection pass all of the business rule checks. If the process encounters a business rule violation (denoted with an error code beginning with "CBM"), no data in the current or subsequent collections of 250 rows will be committed to the system; however, all data from previous collections will remain committed to the system. For example, if a business rule violation occurs on row 781 of the input file, only the first 750 rows of data from the input file are committed to the system.

#### **8.1.1. Upload and Download Process**

Using Upload/Download Batch interface requires selecting Upload/Download through a series of hyperlinks from the NYISO home page. A Web Browser or a customer application that supports authentication and encryption is required to gain access.

From the NYISO home page located at <http://www.nyiso.com>, choose **OASIS**, activate the **Market Access** tab, then under the heading **Bidding & Scheduling**, choose **Bidding & Scheduling Upload/Download**. With the proper Digital Certificate, the MIS Upload/Download display is presented (see Figure 87). A North American Energy Standards Board (NAESB) compliant digital certificate must be obtained and linked to the MIS user account being used by the organization's application. Information on obtaining and managing a digital certificate can be found in section 4.4, Digital Certificates, of this Guide.

**Note:** The MIS user ID and password on the upload/download file must be the same as the MIS user ID and password on the MIS user account performing the upload/download.

**Figure 87: MIS Upload/Download display**

The screenshot shows a web page titled "Upload/Download". At the top left, there is a breadcrumb navigation path: "OASIS > Bidding & Scheduling". Below the title, there is a text input field labeled "File name:" followed by a "Browse..." button. Underneath these, there is a "SUBMIT" button.

Each Market Participant is responsible for entering bid information into the Market Information System accurately, completely, and in a timely fashion. Each Market Participant is responsible for the results, intended or otherwise, of its individual bidding strategies. The NYISO's liability for damages to any Market Participant or other party that may result from its administration of the wholesale energy markets in New York is strictly limited under Section 12.3 of the NYISO Market Administration and Control Area Services Tariff to direct damages resulting from gross negligence or intentional misconduct.

The User then selects a file from his/her local disk by typing a file name or using the (file) Browse button available with Netscape 7.x and MS Explorer 6.x, or equivalent. When the User clicks on the **SUBMIT** button, the input file is sent to the Web server (method = 'POST'), where it is received by the MIS interface program.

An MIS application processes the information in the template and generates a response. The browser receives and displays the CSV text response, which can then be saved as a file if desired on the Market Participant's local computer.

This procedure is compatible with the two popular Web Browsers, Internet Explorer version 6x and above, and Netscape Navigator 7.x and above.

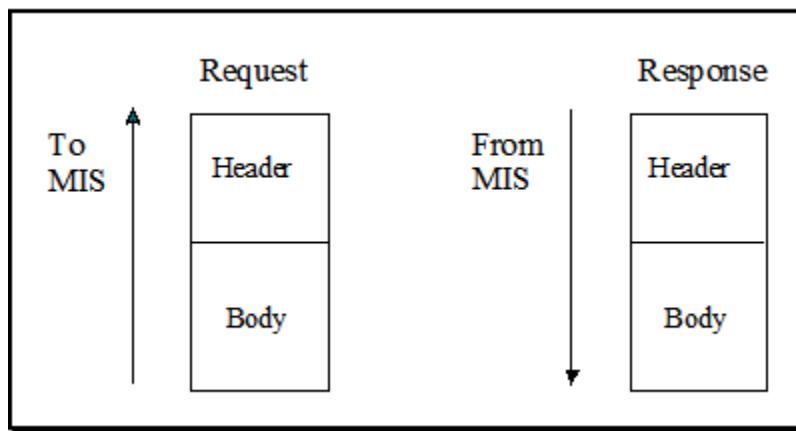
### 8.1.2. Overview of Templates

There are two types of templates: upload templates and download templates. The upload templates are discussed first.

#### **Upload Templates**

Each upload template is divided into an upload request and upload response. Each request and response has a header and footer as shown in Figure 88. Let's look at the upload request first.

**Figure 88: Upload Template**



#### *Upload Request*

The header of the upload request is delimited by ampersands (&) that separate the various records of the header. All upload requests require a four- record header as follows:

1. **BID\_TYPE** – Indicates the type of information requested or bid that is being supplied
2. **USERID** – To log on to MIS
3. **PASSWORD** – To log on to MIS
4. **DATA ROWS** – The number of records that follow

Valid BID\_TYPE values are:

- **GEN\_BID** – Submit Generator Bids
- **UC\_DATA** – Submit Generator Commitment Parameters
- **LOAD\_BID** – Submit Load Bids
- **TRAN\_BID** – Submit Internal Transaction Bids
- **CONFIRM\_TRAN\_BID** – Submit Transaction Bid Confirmation (internal)

- ***DELETE\_GEN\_BID*** – Delete Generator Bid
- ***DELETE\_LOAD\_BID*** – Delete Load Bid
- ***DELETE\_TRAN\_BID*** – Delete Transaction Bid (internal).

#### *Upload Response*

The response to an upload request contains a three-record header as follows.

1. ***TIME\_STAMP*** – An indication of the time that the MIS processed information
2. ***BID\_TYPE*** – An indication of the type of information requested or bid that is being supplied  
(See valid bid types above)
3. ***DATA ROWS*** – The number of records that follow

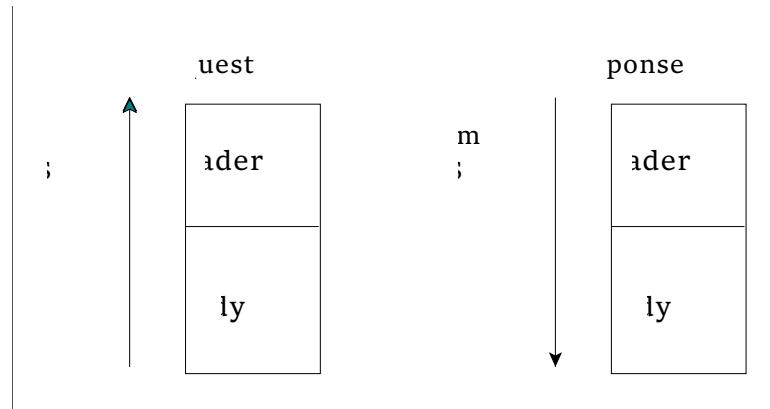
The body of both the upload request and upload response are defined for each bid type in Sections [8.2.1](#) through [8.2.8](#).

Multiple records of the same type can be included. For example, all generator bids can be grouped into one generator template.

#### *Download Templates*

Each download template is divided into a download request and download response. Each request and response has a header and footer as shown in Figure 89.

**Figure 89: Download Template**



### *Download Query*

The header of the download query is delimited by ampersands (&) that separate the various records of the header. All download queries require a three-record header as follows:

1. **USERID** – To log on to MIS
2. **PASSWORD** – To log on to MIS
3. **QUERY\_TYPE** – Indicates the type of information requested or bid that is being supplied

Valid QUERY\_TYPE values are:

- **GEN\_SCH** – Download Generator Bids and Schedules
- **GEN\_RTD** – Download Generator RTD Schedules
- **U\_COMM** – Download Generator Commitment Parameters
- **LOAD\_SCH** – Download Load Bids and Schedules
- **TRAN\_SCH** – Download Internal Transaction Bids and Schedules
  
- **GEN\_DETAIL** – Download Generator Details
- **GEN\_OUT** – Download Generator Outages/Deratings
- **LOAD\_DETAIL** – Download Load Bus Details
- **TRAN\_CONTRACT** – Download Transaction Contracts (internal)
- **CREDIT\_CHECK** – Download Virtual Bidding Credit Limits

The body of the download query is defined for each bid type in Sections [8.3.1](#) through [8.3.10](#).

## *Download Response*

The response to a download request contains a three-record header, as follows:

4. **TIME\_STAMP** – An indication of the time that the MIS processed information
5. **BID\_TYPE** – An indication of the type of information requested (see valid bid types above)
6. **DATA ROWS** – The number of records that follow

The body of the upload response is defined for each bid type in Sections [8.3.1](#) through [8.3.5](#).

### 8.1.3. Section Organization

Sections [8.2](#) and [8.3](#) describe the upload and download templates. The material in each subsection is organized as described below.

#### ***Section Title***

This is the title or action associated with process. For example, the title of Section [8.2.1](#) is *Submit Generator Bids*.

#### ***Data Dictionary***

For each parameter used in a bid or returned with a response, a definition is supplied as to what the parameter is. Two data type formats are provided:

- a CHAR(x) format indicates a variable length string with maximum number of characters equal to 'x'
- a NUM(x,y) format indicates a maximum of 'x' digits excluding decimal point and sign, with 'y' digits of precision

For example, NUM(5,1) has limits of -9999.9 to 9999.9. A NUM format without 'x' and 'y' indicates an unrestricted numeric (practical limits for these is NUM(8,0) or lower).

#### ***Template Body Submission Fields***

The title line identifies the parameters being submitted. For example, the first title line in Section [8.2.1](#) is "Generator Bid Submission Parameters."

Following the title is an ordered, comma-separated list of fields that must appear in the template. Required parameters are shown in bold under the submission section of the template. Optional parameters allow null (no characters between commas) to be supplied.

### **Template Body Response Fields**

The title line identifies the parameters contained in the response and the corresponding display. For example, in Section [8.2.1](#), the title is “Generator Bid Response Parameters.”

Following the title is an ordered, comma-separated list of fields that the MIS will return in response to a particular submission.

### ***Input File Example***

This section shows an example of an input file (submission), in CSV format.

### ***Output File Example***

This section shows an example of an output file (response), in CSV format.

## **8.2. Upload Templates**

**Note:** The Data Dictionary sections below are not intended to be used for showing the order of the parameters. An ordered list of parameters that the program expects and returns is provided in the templates under the submission and response sections. Required parameters are shown in bold under the submission section of the template.

### **8.2.1. Submit Generator Bids**

#### ***Data Dictionary***

| Parameter                       | Data Type | Description   | Submission/<br>Response |
|---------------------------------|-----------|---|-------------------------|
| Generator                       | NUM(6,0)  | Name or PTID for the generator or Aggregation exactly as shown in the MIS.  | S, R                    |
| Generator PTID                  | NUM(6)    | PTID of the generator or Aggregation  | R                       |
| Date & time                     | CHAR(16)  | Starting time of bid (MM/DD/YYYY HH24:00).  | S, R                    |
| Duration                        | NUM(3)    | Number of hours the bid is good for.  | S                       |
| Market                          | CHAR(4)   | Market's bid is good for (DAM or HAM).  | S, R                    |
| Expiration                      | CHAR(16)  | Time generator bid is no longer available for consideration in DAM supplemental commitments (MM/DD/YYYY HH24:00).                       | S, R                    |
| Upper operating Limit           | NUM(5,1)  | Maximum MWs that the generator or Aggregation can supply.   | S, R                    |
| Emergency upper operating limit | NUM(5,1)  | EOLe - Emergency Upper Operating Limit. Must be equal to or greater than UOLn, and at least equal to the unit's contracted ICAP amount. | S, R                    |

| Parameter                                   | Data Type | Description  | Submission/<br>Response |
|---|-----------|--|-------------------------|
| Fuel Type ID                                | NUM(4)    | NYISO identifier for the Fuel Type that the unit is using.   | S, R                    |
| Burdened Fuel Price                         | NUM(6,4)  | Generator's full per unit cost of fuel, including taxes, delivery charges, etc.  | S, R                    |
| Start-up cost (\$)                          | NUM(8,2)  | Start up cost dollars. Self-Committed bids require null.   | S, R                    |
| Bid Schedule Type ID (replaces On-dispatch) | NUM       | A number indicating the bid type. Valid Bid Types are:<br>3 - ISO COMMITTED FLEXIBLE (SMD2's version of ON DISPATCH)<br>4 - SELF COMMITTED FLEXIBLE<br>5 - SELF COMMITTED FIXED<br>6 - ISO COMMITTED FIXED | S, R                    |
| Self Committed MW 00                        | NUM(5,1)  | Quarter hour Self Committed MWs for 00   | S, R                    |
| Self Committed MW 15                        | NUM(5,1)  | Quarter hour Self Committed MWs for 15   | S, R                    |
| Self Committed MW 30                        | NUM(5,1)  | Quarter hour Self Committed MWs for 30   | S, R                    |
| Self Committed MW 45                        | NUM(5,1)  | Quarter hour Self Committed MWs for 45   | S, R                    |
| Fixed min. gen. (MW)                        | NUM(5,1)  | This value may not be less than Physical Min Gen MW of the unit.<br>A numeric value must be entered.   | S, R                    |
| Fixed min. gen. Cost (\$)                   | NUM(8,2)  | Bid cost for the generator or Aggregation to reach the minimum operating point.<br>A numeric value must be entered.  | S, R                    |
| Dispatch curve MW(1-12)                     | NUM(5,1)  | 1-11 MW points of a dispatch curve.  | S, R                    |
| Dispatch curve \$/MW(1-11)                  | NUM(6,2)  | 1-11 \$/MW points of a dispatch curve  | S, R                    |
| 10 min nonsynch cost                        | NUM(6,2)  | Cost / MW of non-synchronous capacity bid to satisfy NYISO 10 minute total reserve requirement. Value Required   | S, R                    |
| 10 min spinning cost                        | NUM(6,2)  | Cost per MW of spinning capacity bid to satisfy NY ISO 10 minute spinning reserve requirement. Value Required  | S, R                    |
| 30 min nonsynch cost                        | NUM(6,2)  | Cost / MW of non-synchronous capacity bid to satisfy NY ISO operating reserve requirement. Value Required  | S, R                    |
| 30 min spinning cost                        | NUM(6,2)  | Cost per MW of spinning capacity bid to satisfy NY ISO operating reserve requirement. Value Required   | S, R                    |

| Parameter                        | Data Type  | Description   | Submission/<br>Response |
|----------------------------------|------------|---|-------------------------|
| Regulation Capacity MWs          | NUM(5,1)   | MW of generation bid to respond to AGC signals.   | S, R                    |
| Regulation Capacity Cost         | NUM(6,2)   | Cost per MW of generation bid to respond to AGC signals.  | S, R                    |
| Regulation Movement Cost         | NUM(6,2)   | Cost per MW of regulation movement instructed by AGC  | S, R                    |
| Bid id                           | NUM        | A unique identifier identifying the bid.  | R                       |
| Bid status                       | CHAR(20)   | Current status of the bid (validation failed, validation passed, accepted, etc.)  | R                       |
| Message                          | CHAR(1000) | Validation messages providing bid details.  | R                       |
| Opportunity Cost \$/MW (1-11)    | NUM(6,2)   | Optional reference level opportunity cost submission for all Generators and Aggregations, up to 11 points, Corresponds to the \$/MWh  | S, R                    |
| ESR Beginning Energy Level (MWh) | NUM(7,1)   | <b>Energy level that will be evaluated for the ESR for the market day in MWh. (DAM ONLY)</b>  | S, R                    |
| Lower Storage Limit (MWh)        | NUM(7,1)   | Minimum amount of Energy the ESR is physically capable of storing.  | S, R                    |
| Upper Storage Limit (MWh)        | NUM(7,1)   | Maximum amount of Energy the ESR is physically capable of storing.  | S, R                    |
| Energy Management Mode           | CHAR(1)    | ISO Managed reflected as "I" or Self Managed reflected as "S".  | S, R                    |
| Lower Operating Limit            | NUM(5,1)   | Minimum MW level at which the ESR is willing to operate.  | S, R                    |
| Host Load                        | NUM(5,1)   | The Host Load Value for a BTM:NG  | S, R                    |
| CSR Outage Type                  | CHAR(1)    | Select the POI outage type "P" for Planned –Only if the outage is more than 48 hours before the start of the Market day and approved by NYISO. Otherwise it has to be "F" for Forced. Use "N" for Normal, if there is no MW outage to report. ( <i>Note: The Bids submitted for the IPR Unit and the ESR Unit must supply the same value for CSR Outage Type.</i> ) |                         |
| CSR Injection Limit              | NUM(5,1)   | Maximum amount of Energy the CSR is physically capable of Injecting   |                         |
| CSR Withdrawal Limit             | NUM(5,1)   | Maximum amount of Energy the CSR is physically capable of withdrawing   |                         |

### ***Generator Bid Submission Parameters***

Generator, date & time, duration, market, expiration, upper operating limit, emergency upper operation limit, fuel type, Burdened Fuel Price, start up cost (\$), bid schedule type id, self committed MWs 00, self committed MWs 15, self committed MWs 30, self committed MWs 45, fixed min gen MW, fixed min gen cost, dispatch curve MW 1, dispatch curve MW 2, dispatch curve MW 3, dispatch curve MW 4, dispatch curve MW 5, dispatch curve MW 6, dispatch curve MW 7, dispatch curve MW 8, dispatch curve MW 9, dispatch curve MW 10, dispatch curve MW 11, dispatch curve \$/MW 1, dispatch curve \$/MW 2, dispatch curve \$/MW 3, dispatch curve \$/MW 4, dispatch curve \$/MW 5, dispatch curve \$/MW 6, dispatch curve \$/MW 7, dispatch curve \$/MW 8, dispatch curve \$/MW 9, dispatch curve \$/MW 10, dispatch curve \$/MW 11, 10 min non-synch cost, 10 min spinning cost, 30 min non-synch cost, 30 min spinning cost, regulation capacity MWs, regulation capacity cost, regulation movement cost, Opportunity cost \$/MW 1, Opportunity cost \$/MW 2, Opportunity cost \$/MW 3, Opportunity cost \$/MW 4, Opportunity cost \$/MW 5, Opportunity cost \$/MW 6, Opportunity cost \$/MW 7, Opportunity cost \$/MW 8, Opportunity cost \$/MW 9, Opportunity cost \$/MW 10, Opportunity cost \$/MW 11, ESR Beginning Energy Level, Lower Storage Limit, Upper Storage Limit, Energy Management Mode, Lower Operating Limit, Host Load, CSR Outage Type, CSR Injection Limit, CSR Withdrawal Limit,

### ***Generator Bid Response Parameters***

Generator name, Generator PTID, date & time, market, expiration, upper operating limit, emergency upper operating limit, fuel type, Burdened Fuel Price, start-up cost (\$), bid schedule type id, self committed MWs 00, self committed MWs 15, self committed MWs 30, self committed MWs 45, fixed min gen (MW) fixed min gen cost (\$), dispatch curve MW 1, dispatch curve MW 2, dispatch curve MW 3, dispatch curve MW 4, dispatch curve MW 5, dispatch curve MW 6, dispatch curve MW 7, dispatch curve MW 8, dispatch curve MW 9, dispatch curve MW 10, dispatch curve MW 11, dispatch curve MW 12, dispatch curve \$/MW 1, dispatch curve \$/MW 2, dispatch curve \$/MW 3, dispatch curve \$/MW 4, dispatch curve \$/MW 5, dispatch curve \$/MW 6, dispatch curve \$/MW 7, dispatch curve \$/MW 8, dispatch curve \$/MW 9, dispatch curve \$/MW 10, dispatch curve \$/MW 11, dispatch curve \$/MW 12, 10 min non-synch cost, 10 min spinning cost, 30 min non-synch cost, 30 min spinning cost, regulation capacity MWs, regulation capacity cost, regulation movement cost, bid id, bid status, message, Opportunity Cost \$/MW 1, Opportunity Cost \$/MW 2, Opportunity Cost \$/MW 3, Opportunity Cost \$/MW 4, Opportunity Cost \$/MW 5, Opportunity Cost \$/MW 6, Opportunity Cost \$/MW 7,

Opportunity Cost \$/MW 8, Opportunity Cost \$/MW 9, Opportunity Cost \$/MW 10, Opportunity Cost \$/MW 11, Opportunity Cost \$/MW 12, ESR Beginning Energy Level, Lower Storage Limit, Upper Storage Limit, Energy Management Mode, Lower Operating Limit, Host Load, CSR Outage Type, CSR Injection Limit, CSR Withdrawal Limit,

### ***Generator Bid Examples***

#### *Generator Bid Submission*

```
BID_TYPE=GEN_BID&
USERID=testupld&
PASSWORD=testupld&
DATA_ROWS=1&
UNIT_1,5/5/2020
00:00,1,DAM,,90,91,,,3,,,0,0,50,60,91,,,,,,17.24,23.22,24.22,,,,,,,,,,6.64,6.64,6.64,,N,50,-
15
```

#### *Generator Bid Return*

```
TIME_STAMP=04/30/2020 11:59
BID_TYPE=GEN_BID
DATA_ROWS=1
"UNIT_1",12345,"05/05/2020
00:00","DAM","","90,91,,,3,,,0,0,50,60,91,,,,,,17.24,23.22,24.22,,,,,,,,,,1015235569,"VALIDAT
ION PASSED","","6.64,6.64,6.64,,N",50,-15
```

### 8.2.2. Generator Commitment Parameters

#### *Data Dictionary*

| Parameter                         | Data Type       | Description  | Submission/<br>Response |
|-----------------------------------|-----------------|--|-------------------------|
| Generator                         | NUM or CHAR(32) | Name or PTID for the generator shown in MIS.   | S, R                    |
| Generator PTID                    | NUM(6)          | PTID of the generator  | R                       |
| Min. run time                     | NUM(5,2)        | Minimum hours in a dispatch day a unit must run once started by the ISO.                                     | S, R                    |
| Min. down time                    | NUM(5,2)        | Minimum hours in a dispatch day a unit must be down was decommissioned by the ISO.                           | S, R                    |
| Max. stops per day                | NUM(3,0)        | Number of times a unit can be decommissioned in a dispatch day.  | S, R                    |
| Start-up notification             | NUM(5,2)        | The time it takes for a generator to reach its own min gen level after notification from the NYISO is given. | S, R                    |
| Start-up bid time (1-6)           | NUM(5,2)        | Start-up cost curve, hours off-line.   | S, R                    |
| Start-up bid cost (1-6)           | NUM(8,2)        | Start-up cost curve, \$ to start.  | S, R                    |
| Notification hours to start (1-6) | NUM(5,2)        | Start-up notification time curve, hours to start.  | S, R                    |
| Notification hours off line (1-6) | NUM(5,2)        | Start-up notification time curve, hours off-line.  | S, R                    |
| Commitment id                     | NUM             | Unique identifier identifying the commitment data being supplied.  | R                       |
| Update User                       | CHAR            | MIS User that supplied the current data.   | R                       |
| Update time                       | CHAR(16)        | Time bid was submitted to MIS (MM/DD/YYYY HH24:00)   | R                       |

#### *Generator Commitment Submission Parameters*

generator name, min. run time, min. down time, max. stops per day, start-up notification, start-up bid time (1-6), start-up bid cost (1-6), notification hours to start (1-6), notification hours off line (1-6).

#### *Generator Commitment Response Parameters*

generator name, generator PTID, min. run time, min. down time, max. stops per day, start-up notification, start-up bid time (1-6), start-up bid cost (1-6), notification hours to start (1-6), notification hours off line (1-6), commitment id, update User, update time.

### ***Generator Commitment Example***

#### *Submission File Example*

```
BID_TYPE=UC_DATA&
USERID=testupld&
PASSWORD=testupld&
DATA_ROWS=2&
"SUBZ_900101_38_GEN -
900301",5,2,2,1,1,2,3,4,5,6,11000,12000,13000,14000,15000,16000,1,2,3,4,5,6,1,2,3,4,5,6
900302,5,2,2,1,1,2,3,4,5,6,11000,12000,13000,14000,15000,16000,1,2,3,4,5,6,1,2,3,4,5,6
```

#### *Response File Example*

```
TIME_STAMP=08/04/2008 11:02
BID_TYPE=UC_DATA
DATA_ROWS=2
"SUBZ_900101_38_GEN -
900301",900301,5,2,2,1,1,2,3,4,5,6,11000,12000,13000,14000,15000,16000,1,2,3,4,5,6,1,2,3,4,
5,6,105756,"TESTUPLD","08/04/2008 11:02"
"SUBZ_900101_38_GEN -
900302",900302,5,2,2,1,1,2,3,4,5,6,11000,12000,13000,14000,15000,16000,1,2,3,4,5,6,1,2,3,4,
5,6,105757,"TESTUPLD","08/04/2008 11:02"
```

### **8.2.3. Loads Bids**

#### ***Data Dictionary***

| Parameter          | Data Type           | Description  | Submission/<br>Response |
|--------------------|---------------------|--|-------------------------|
| Load               | NUM (6) or CHAR(36) | Name or PTID for a load exactly as shown in the MIS.   | S,R                     |
| Date & time        | CHAR(16)            | Starting time of bid (MM/DD/YYYY HH24:00). For transition from daylight savings time to standard time, time 2:00 is automatically repeated. The second hour 2:00 can be overwritten by entering a time of 25:00. | S,R                     |
| Forecast MW        | NUM(6,0)            | Forecasted MWs to be consumed.   | S,R                     |
| Fixed MW           | NUM(6,0)            | Fixed MWs that are to be procured from the DAM   | S,R                     |
| Price cap 1 MW     | NUM(6,0)            | Fixed block of dispatchable load based on associated price.  | S,R                     |
| Price cap 1 dollar | NUM(6,2)            | Dispatchable load dollars per MW.  | S,R                     |

| Parameter                  | Data Type  | Description  | Submission/<br>Response |
|----------------------------|------------|--|-------------------------|
| Price cap 2 MW             | NUM(6,0)   | Fixed block of dispatchable load based on associated price.  | S,R                     |
| Price cap 2 dollar         | NUM(6,2)   | Dispatchable load dollars per MW.  | S,R                     |
| Price cap 3 MW             | NUM(6,0)   | Fixed block of dispatchable load based on associated price.  | S,R                     |
| Price cap 3 dollar         | NUM(6,2)   | Dispatchable load dollars per MW.  | S,R                     |
| Interruptible type         | CHAR(10)   | Flag indicating load will interrupt in 10 or 30 minutes for purpose of satisfying ISO reserve requirement (10MIN or 30MIN) | S,R                     |
| Interruptible fixed MW     | NUM(6,1)   | Interruptible load bid MW, associated with the fixed MW bid, available for satisfying reserve requirement.                 | S,R                     |
| Interruptible fixed cost   | NUM(6,2)   | Cost for interruptible fixed load bid.   | S,R                     |
| Interruptible capped MW    | NUM(6,1)   | Interruptible load bid MW, associated with the price capped MW bid, available for satisfying reserve requirement.          | S,R                     |
| Interruptible capped cost  | NUM(6,2)   | Cost for interruptible capped load bid.  | S,R                     |
| Bid id                     | NUM(32)    | A unique identifier identifying the bid.   | R                       |
| Sched price capped         | NUM(6,1)   | Scheduled energy associated with the price capped bid (MW).  | R                       |
| Sched interruptible fixed  | NUM(6,1)   | Amount of fixed load that has been scheduled as available to interrupt (MW).   | R                       |
| Sched interruptible capped | NUM(6,1)   | Amount of price capped load that has been scheduled as available to interrupt (MW)   | R                       |
| Bid status                 | CHAR(20)   | Current status of the bid (validation failed, validation passed, accepted, etc.)   | R                       |
| Message                    | CHAR(1000) | Validation messages providing bid details.   | R                       |

### ***Load Bids Submission Parameters***

load, date & time, forecast MW, fixed MW, price cap 1 MW, price cap 1 dollar, price cap 2 MW, price cap 2 dollar, price cap 3 MW, price cap 3 dollar, interruptible type, interruptible fixed MW, interruptible fixed cost, interruptible capped MW, interruptible capped cost

### ***Load Bids Response Parameters***

load name, load PTID, date & time, forecast MW, fixed MW, price cap 1 MW, price cap 1 dollar, price cap 2 MW, price cap 2 dollar, price cap 3 MW, price cap 3 dollar, interruptible type, interruptible fixed MW,

interruptible fixed cost, interruptible capped MW, interruptible capped cost, bid id, sched price capped, sched interruptible fixed, sched interruptible capped, bid status, message

### ***Load Bid Examples***

#### *Submission File Example*

```
BID_TYPE=LOAD_BID&
USERID=testupld&
PASSWORD=testupld&
DATA_ROWS=2&
900321,08/08/2007 00:00,300,300,350,20,450,25,,30MIN,250,10,400,20
900322,08/08/2007 01:00,300,300,,,,,,10MIN,250,10
```

#### *Response File Example*

```
TIME_STAMP=08/04/2007 11:04
BID_TYPE=LOAD_BID
DATA_ROWS=2
"BUS - 900321_38_TEST_BUS - 21",900321,"08/08/2007
00:00",300,300,350,20,450,25,,,"30MIN",250,10,400,20,105718,,,,"VALIDATION PASSED","""
"BUS - 900322_38_TEST_BUS - 22",900322,"08/08/2007
01:00",300,300,,,,,,,"10MIN",250,10,,105719,,,,"VALIDATION PASSED",""
```

### **8.2.4. Submit Internal Transactions**

#### ***Data Dictionary***

| Parameter   | Data Type          | Description  | Submission/<br>Response |
|-------------|--------------------|--|-------------------------|
| Date & time | CHAR(16)           | Starting time of bid (MM/DD/YYYY HH24:00). For transition from daylight savings time to standard time, time 2:00 is automatically repeated. The second hour 2:00 can be overwritten by entering a time of 25:00. | S,R                     |
| Source      | CHAR(36) or NUM(6) | Generator name or PTID for the generator or Aggregation exactly as shown in the MIS that is source for transaction.  | S,R                     |
| Sink        | CHAR(36) or NUM(6) | Name or PTID for a load or withdrawal-eligible generator exactly as shown in the MIS that is sink for transaction.   | S,R                     |
| Market      | CHAR(9)            | Market bid is good for (DAM, HAM, or NON-FIRM).  | S,R                     |

| Parameter             | Data Type  | Description   | Submission/<br>Response |
|-----------------------|------------|---|-------------------------|
| NERC priority         | NUM(2)     | NERC Priority of transaction. 1-6 used for non-firms. 7 is used for firms.                  | S,R                     |
| User reference        | CHAR(16)   | A reference used by the User to uniquely identify this transaction.                         | S,R                     |
| Bid energy MW         | NUM(5,0)   | Fixed block of energy MW supported by transaction.  | S,R                     |
| Bid id                | NUM(32)    | The NYISO internal unique identifier of the bid.  | R                       |
| Transaction id        | NUM(32)    | The NYISO unique identifier of the static contract data associated with the bid.            | R                       |
| FRP confirm status    | CHAR(1)    | Flag indicating if FRP has agreed to transaction bid.                                       | R                       |
| Seller confirm status | CHAR(1)    | Flag indicating if seller has agreed to transaction bid.                                    | R                       |
| Buyer confirm status  | CHAR(1)    | Flag indicating if buyer has agreed to transaction bid.                                     | R                       |
| Sched energy          | NUM(5,1)   | Schedule amount of energy (MW)  | R                       |
| Bid status            | CHAR(20)   | Current status of the bid (validation failed, validation passed, accepted, etc.)            | R                       |
| Message               | CHAR(1000) | Validation messages providing bid details. Multiple messages are separated by a semi-colon. | R                       |

### ***Transaction Bid Submission Parameters***

**date & time, source, sink, market, spare, spare, spare, spare, nerc priority, User reference, spare, bid energy MW, spare, spare, spare**

### ***Submit Transactions Response Parameters***

date & time, source name, source PTID, sink name, sink PTID, market, spare, spare, spare, spare, NERC priority, User reference, spare, bid energy MW, spare, spare, bid id, transaction id, frp confirm status, seller confirm status, buyer confirm status, sched energy, spare, spare, bid status, message

### ***Submit Transactions Examples***

#### ***Example: Submission File Example***

**BID\_TYPE=TRAN\_BID&**

**USERID=testupld&**

**PASSWORD=testupld&**

**DATA\_ROWS=4&**

06/30/2011 00:00, 900301,900320,DAM,,,,,,7,G1#1001,,301,,,  
06/30/2011 01:00, 900301,900320,DAM,,,,,,7,G1#1001,,150,,,  
06/30/2011 02:00, 900301,900320,DAM,,,,,,7,G1#1001,,150,,,  
06/30/2011 03:00, 900301,900320,DAM,,,,,,7,G1#1001,,301,,,

***Example: Response File Example***

TIME\_STAMP=06/23/2011 15:37  
BID\_TYPE=TRAN\_BID  
DATA\_ROWS=4  
"06/30/2011  
00:00","SUBZ\_900101\_38\_GEN - 900301",900301,"BUS - 900320\_38\_TEST\_BUS - 20",900320,"  
DAM","","","","7,"G1#1001",,301,,255256,107439, "Y","N","Y",,, "WAITING  
CONFIRMATION","Buyer automatically confirmed.Transaction Seller not Confirmed."  
"06/30/2011  
01:00","SUBZ\_900101\_38\_GEN - 900301",900301,"BUS - 900320\_38\_TEST\_BUS - 20",900320,"  
DAM","","","","7,"G1#1001",,150,,255256,107439, "Y","N","Y",,, "WAITING  
CONFIRMATION","Buyer automatically confirmed.Transaction Seller not Confirmed."  
"06/30/2011  
02:00","SUBZ\_900101\_38\_GEN - 900301",900301,"BUS - 900320\_38\_TEST\_BUS - 20",900320,"  
DAM","","","","7,"G1#1001",,150,,255256,107439, "Y","N","Y",,, "WAITING  
CONFIRMATION","Buyer automatically confirmed.Transaction Seller not Confirmed."  
"06/30/2011  
03:00","SUBZ\_900101\_38\_GEN - 900301",900301,"BUS - 900320\_38\_TEST\_BUS - 20",900320,"  
DAM","","","","7,"G1#1001",,301,,255256,107439, "Y","N","Y",,, "WAITING  
CONFIRMATION","Buyer automatically confirmed.Transaction Seller not Confirmed."

### **8.2.5. Confirm Transaction Bids**

#### ***Data Dictionary***

| Parameter                 | Data Type  | Description   | Submit/<br>Response |
|---------------------------|------------|---|---------------------|
| Bid id                    | NUM(32)    | The NYISO internal unique identifier of the bid.  | S,R                 |
| Transaction id            | NUM(32)    | The NYISO unique identifier of the static contract data associated with the bid.  | S,R                 |
| Date & time               | CHAR(16)   | Day and time of bid (MM/DD/YYYY HH24:00).   | S,R                 |
| Confirm status            | CHAR(1)    | Status of confirmation the bid should be set to (Y or N).   | S                   |
| Process Unidentified Bids | CHAR(1)    | An optional header parameter which instructs the MIS continue to process the entire submission file when bids are specified in the file that do not exist in the MIS. | S                   |
| FRP Confirm Status        | CHAR(1)    | Flag indicating if FRP agreed to transaction bid  | R                   |
| Buyer Confirm Status      | CHAR(1)    | Flag indicating if Buyer agreed to transaction bid  | R                   |
| Seller Confirm Status     | CHAR(1)    | Flag indicating if Seller agreed to transaction bid   | R                   |
| Bid Status                | CHAR(20)   | Current status of the bid (validation failed, validation passed, accepted, etc.)  | R                   |
| Message                   | CHAR(1000) | Validation messages providing bid details.  | R                   |

#### ***Confirm Transactions Submission Parameters***

bid id, transaction id, date & time, spare, confirm status, process unidentified bids (optional)

**Note:** Recommended confirmation method is to enter all four parameters or else bid id and confirm status.

#### ***Confirm Transactions Response Parameters***

bid id, transaction id, date & time, frp confirm status, buyer confirm status, seller confirm status, bid status, message

#### ***Confirm Transaction Bid Examples***

##### ***Submission File Example***

```
BID_TYPE=CONFIRM_TRAN_BID&
USERID=testupld&
PASSWORD=testupld&
DATA_ROWS=2&
```

PROCESS\_UNIDENTIFIED\_BIDS=Y&  
 105725,104197,08/08/2007 00:00,,Y  
 105727,,,N

*Response File Example*

```

TIME_STAMP=08/08/2007 11:07
BID_TYPE=CONFIRM_TRAN_BID
DATA_ROWS=2
105725,104197,"08/08/2007 00:00","Y","Y","N","WAITING CONFIRMATION","",""
105727,104237,"08/08/2007 00:00","Y","N","Y","WAITING CONFIRMATION","",""

```

### 8.2.6. Delete Generator Bids

#### *Data Dictionary*

| Parameter                       | Data Type       | Description  | Submission/<br>Response |
|---------------------------------|-----------------|--|-------------------------|
| Bid id                          | NUM             | The NYISO internal unique identifier of the bid.   | S, R                    |
| Generator                       | NUM or CHAR(32) | Name or PTID for the generator or Aggregation exactly as shown in the MIS.   | S, R                    |
| Generator PTID                  | NUM(6)          | PTID of the generator or Aggregation   | R                       |
| Date & time                     | CHAR(16)        | Day and time of bid (MM/DD/YYYY HH24:00)   | S, R                    |
| Market                          | CHAR(4)         | Market (HAM or DAM)  | S, R                    |
| Expiring                        | CHAR(16)        | Time generator bid is no longer available for consideration in DAM supplemental commitments (MM/DD/YYYY HH24:00).                        | R                       |
| Upper Operating Limit           | NUM(5,1)        | Maximum MWs that the generator or Aggregation can supply   | R                       |
| Emergency Upper Operating Limit | NUM(5,1)        | EOLe - Emergency Upper Operating Limit. Must be equal to or greater than UOLn, and at least equal to the unit's contracted ICAP amount.  | R                       |
| Fuel Type ID                    | NUM(4)          | NYISO identifier for the Fuel Type that the unit is using.   | R                       |
| Burdened Fuel Price             | NUM(6,4)        | Generator's full per unit cost of fuel, including taxes, delivery charges, etc.  | R                       |
| Start Up Cost (\$)              | NUM(8,2)        | Start up cost dollars. Self-Committed bids require null.   | R                       |
| Bid Schedule Type ID            |                 | umber indicating the bid type. Valid Bid Types are:<br>ISO COMMITTED FLEXIBLE (SMD2's version of ON DISPATCH)<br>SELF COMMITTED FLEXIBLE | R                       |

| Parameter                        | Data Type  | Description   | Submission/<br>Response |
|----------------------------------|------------|---|-------------------------|
|                                  |            | SELF COMMITTED FIXED<br>6 – ISO COMMITTED FIXED   |                         |
| Self Committed MW 00             | NUM(5,1)   | Quarter hour Self Committed MWs for 00  | R                       |
| Self Committed MW 15             | NUM(5,1)   | Quarter hour Self Committed MWs for 15  | R                       |
| Self Committed MW 30             | NUM(5,1)   | Quarter hour Self Committed MWs for 30  | R                       |
| Self Committed MW 45             | NUM(5,1)   | Quarter hour Self Committed MWs for 45  | R                       |
| Fixed Min Gen (MW)               | NUM(7,2)   | Lower operating limit for the unit. GTs still bid "O".  | R                       |
| Fixed Min Gen Cost (\$)          | NUM(8,2)   | Bid cost for the unit to reach the minimum operating point. Self Committed bids enter null except for GTs which still bid "O" | R                       |
| Dispatch Curve MW 1-12           | NUM(5,1)   | 1-12 MW points of a dispatch curve  | R                       |
| Dispatch Curve \$/MW 1-12        | NUM(6,2)   | 1-12 \$/MW points of a dispatch curve   | R                       |
| 10 Min Non-Synch Cost            | NUM(6,2)   | Cost / MW of non-synchronous capacity bid to satisfy NYISO 10 minute total reserve requirement. Value Required                | R                       |
| 10 Min Spinning Cost             | NUM(6,2)   | Cost per MW of spinning capacity bid to satisfy NYISO 10 minute spinning reserve requirement. Value Required                  | R                       |
| 30 Min Non-Synch Cost            | NUM(6,2)   | Cost / MW of non-synchronous capacity bid to satisfy NYISO operating reserve requirement. Value Required                      | R                       |
| 30 Min Spinning Cost             | NUM(6,2)   | Cost per MW of spinning capacity bid to satisfy NYISO operating reserve requirement. Value Required                           | R                       |
| Regulation Capacity MW           | NUM(5,1)   | MW of generation bid to respond to AGC signals.   | R                       |
| Regulation Capacity Cost         | NUM(6,2)   | Cost per MW of generation bid to respond to AGC signals.  | R                       |
| Regulation Movement Cost         | NUM(6,2)   | Cost per MW of regulation movement instructed by AGC.   | R                       |
| Bid Status                       | CHAR(20)   | Current status of the bid (validation failed, validation passed, accepted, etc.)  | R                       |
| Bid Messages                     | CHAR(1000) | Validation messages providing bid details   | R                       |
| Opportunity Cost Curve MW 1-12   | NUM(5,1)   | 1-12 MW points of a Opportunity Cost curve  | R                       |
| ESR Beginning Energy Level (MWh) | NUM(7,1)   | Energy level that will be evaluated for the ESR for the market day in MWh. (DAM ONLY)   | S, R                    |

| Parameter                         | Data Type | Description   | Submission/<br>Response |
|-----------------------------------|-----------|---|-------------------------|
| Lower Storage Limit (MWh)         | NUM(7,1)  | Minimum amount of Energy the ESR is physically capable of storing.  | S, R                    |
| Upper Storage Limit (MWh)         | NUM(7,1)  | Maximum amount of Energy the ESR is physically capable of storing.  | S, R                    |
| Energy Management Mode            | CHAR(1)   | ISO Managed reflected as "I" or Self Managed reflected as "S".  | S, R                    |
| Lower Operating Limit             | NUM(5,1)  | Minimum MW level at which the ESR is willing to operate.  | S, R                    |
| Host Load                         | NUM(5,1)  | The Host Load Value for a BTM:NG  | S, R                    |
| CSR Outage Type                   | CHAR(1)   | Select the POI outage type "P" for Planned – Only if the outage is more than 48 hours before the Market day and approved by NYISO. Otherwise it has to be "F" for Forced, or "N" for Normal, if there is no MW outage to report.<br><i>(Note: The Bids submitted for the IPR Unit and the ESR Unit must supply the same value for CSR Outage Type.)</i> |                         |
| CSR Injection Limit               | NUM(5,1)  | Maximum amount of Energy the CSR is physically capable of Injecting   |                         |
| CSR Withdrawal Limit              | NUM(5,1)  | Maximum amount of Energy the CSR is physically capable of withdrawing   |                         |
| opportunity Cost Curve \$/MW 1-12 | NUM(6,2)  | 1-12 \$/MW points of a Opportunity Cost curve   | R                       |
| Processed Unidentified Bids       | CHAR(1)   | An optional parameter which instructs the MIS continue to process the entire submission file when bids are specified in the file that do not exist in the MIS   | S                       |

### Delete Generator Bid Submission Parameters

Bid id, generator, date & time, market, process unidentified bids (optional)

**Note:** Recommended deletion method is to enter all four parameters or just bid id. Optionally, the generator, date & time, and market may be entered to delete a generator bid.

### Delete Generator Bid Response Parameters

generator name, generator PTID, date & time, market, expiration, upper operating limit, emergency upper operating limit, fuel type ID, burdened fuel price (\$), start-up cost (\$), bid schedule type id, self committed MWs 00, self committed MWs 15, self committed MWs 30, self committed MWs 45, fixed min. gen. (MW), fixed min. gen. cost (\$), dispatch curve MW(1-12), dispatch curve \$/MW(1-12), 10 min non-synch cost, 10 min spinning cost, 30 min non-synch cost, 30 min spinning cost, regulation capacity MWs, regulation

capacity cost, regulation movement cost, bid id, bid status, message, Opportunity Cost \$/MW 1, Opportunity Cost \$/MW 2, Opportunity Cost \$/MW 3, Opportunity Cost \$/MW 4, Opportunity Cost \$/MW 5, Opportunity Cost \$/MW 6, Opportunity Cost \$/MW 7, Opportunity Cost \$/MW 8, Opportunity Cost \$/MW 9, Opportunity Cost \$/MW 10, Opportunity Cost \$/MW 11, Opportunity Cost \$/MW 12, ESR Beginning Energy Level, Lower Storage Limit, Upper Storage Limit, Energy Management Mode, Lower Operating Limit, Host Load, CSR Outage Type, CSR Injection Limit, CSR Withdrawal Limit

### ***Delete Generator Bid Examples***

#### *Submission File Example*

```
BID_TYPE=DELETE_GEN_BID&
USERID=testupld&
PASSWORD=testupld&
DATA_ROWS=2&
,900101,02/27/2004 17:00,DAM
,900101,02/25/2004 19:00,HAM
```

#### *Response File Example*

```
TIME_STAMP=06/23/1999 15:39
BID_TYPE=DELETE_GEN_BID
DATA_ROWS=1
"SUBZ_900101_38_GEN - 900101",900101,"06/30/1999
00:00","HAM","","80,85,,,3,,,,-20,,0,80,85,,,,,,,,,10,15,16,,,,,,,,,,1015508951,"VALIDATION
PASSED","",",,80,100,"S",-20,"N","N",20,-5
```

#### **8.2.7. Delete Load Bids**

#### ***Data Dictionary***

| Parameter                 | Data Type          | Description  | Submission/Response |
|---------------------------|--------------------|--|---------------------|
| Bid id                    | NUM(32)            | The NYISO internal unique identifier of the bid.                             | S,R                 |
| Load                      | NUM(6) or CHAR(36) | Name or PTID for a load exactly as shown in the MIS.                         | S,R                 |
| Date & time               | CHAR(16)           | Day and time of bid (MM/DD/YYYY HH24:00).                                    | S,R                 |
| Process Unidentified Bids | CHAR(1)            | An optional parameter which instructs the MIS continue to process the entire | S                   |

| Parameter                      | Data Type   | Description  | Submission/<br>Response |
|--------------------------------|-------------|--|-------------------------|
|                                |             | submission file when bids are specified in the file that do not exist in the MIS.  |                         |
| Forecast MW                    | NUM(6,0)    | Forecasted MWs to be consumed.   | R                       |
| Fixed MW                       | NUM(6,0)    | Fixed MWs that are to be procured from the DAM   | R                       |
| Price Cap 1 MW                 | NUM(6,0)    | Fixed block of dispatchable load based on associated price.  | R                       |
| Price Cap 1 Dollar             | NUM(6,2)    | Dispatchable load dollars per MW.  | R                       |
| Price Cap 2 MW                 | NUM(6,0)    | Fixed block of dispatchable load based on associated price.  | R                       |
| Price Cap 2 Dollar             | NUM(6,2)    | Dispatchable load dollars per MW.  | R                       |
| Price Cap 3 MW                 | NUM(6,0)    | Fixed block of dispatchable load based on associated price.  | R                       |
| Price Cap 3 Dollar             | NUM(6,2)    | Dispatchable load dollars per MW.  | R                       |
| Interruptible Type             | VARCHAR(10) | Flag indicating load will interrupt in 10 or 30 minutes for purpose of satisfying ISO reserve requirement (10MIN or 30MIN) | R                       |
| Interruptible Fixed Mw         | NUM(6,1)    | Interruptible load bid MW, associated with the fixed MW bid, available for satisfying reserve requirement.                 | R                       |
| Interruptible Fixed Cost       | NUM(6,2)    | Cost for interruptible fixed load bid.   | R                       |
| Interruptible Capped MW        | NUM(6,1)    | Interruptible load bid MW, associated with the price capped MW bid, available for satisfying reserve requirement.          | R                       |
| Interruptible Capped Cost      | NUM(6,2)    | Cost for interruptible capped load bid.  | R                       |
| Scheduled Price Capped         | NUM(6)      | Scheduled energy associated with the price capped bid (MW).  | R                       |
| Scheduled Interruptible Fixed  | NUM(6)      | Amount of fixed load that has been scheduled as available to interrupt (MW).   | R                       |
| Scheduled Interruptible Capped | NUM(6)      | Amount of price capped load that has been scheduled as available to interrupt (MW)   | R                       |
| Bid Status                     | CHAR(20)    | Current status of the bid (validation failed, validation passed, accepted, etc.)   | R                       |
| Messages                       | CHAR(1000)  | Validation messages providing bid details.   | R                       |

### Delete Load Bid Submission Parameters

Bid id, load, date & time, process unidentified bids (optional).

**Note:** Recommended deletion method is to enter bid id. Optionally, the load and date & time without bid id may be entered to delete a bid.

### **Delete Load Bid Response Parameters**

load name, load PTID, date & time, forecast MW, fixed MW, price cap 1 MW, price cap 1 dollar, price cap 2 MW, price cap 2 dollar, price cap 3 MW, price cap 3 dollar, interruptible type, interruptible fixed MW, interruptible fixed cost, interruptible capped MW, interruptible capped cost, bid id, sched price capped, sched interruptible fixed, sched interruptible capped, bid status, message

### **Delete Load Bid Examples**

#### *Submission File Example*

```
BID_TYPE=DELETE_LOAD_BID&
USERID=testupld&
PASSWORD=testupld&
DATA_ROWS=1&
PROCESS_UNIDENTIFIED_BIDS=Y&
900321,06/30/2007 00:00
```

#### *Response File Example*

```
TIME_STAMP=06/23/2007 15:46
BID_TYPE=DELETE_LOAD_BID
DATA_ROWS=1
"BUS - 900321_38_TEST_BUS - 21",900321,"06/30/2007
00:00",300,300,350,20,450,25,"",255262,"VALIDATION PASSED",""
```

### **8.2.8. Delete Transaction Bids**

#### **Data Dictionary**

| Parameter                 | Data Type          | Description  | Submission/<br>Response |
|---------------------------|--------------------|--|-------------------------|
| Bid id                    | NUM(32)            | The NYISO internal unique identifier of the bid.   | S,R                     |
| Transaction id            | NUM(32)            | The NYISO unique identifier of the static contract data associated with the bid.   | S,R                     |
| Date & time               | CHAR(16)           | Day and time of bid (MM/DD/YYYY HH24:00).  | S,R                     |
| Market                    | CHAR(4)            | Market bid is good for (DAM, HAM, or NON-FIRM).  | S,R                     |
| Process Unidentified Bids | CHAR(1)            | An optional header parameter which instructs the MIS continue to process the entire submission file when bids are specified in the file that do not exist in the MIS | S                       |
| Source                    | CHAR(36) or NUM(6) | Generator name or PTID for the generator or Aggregation exactly as shown in the MIS that is source for transaction.  | R                       |

| Parameter              | Data Type          | Description   | Submission/<br>Response |
|------------------------|--------------------|---|-------------------------|
| Sink                   | CHAR(36) or NUM(6) | Name or PTID for a load or withdrawal-eligible generator exactly as shown in the MIS that is sink for transaction.  | R                       |
| Sending Control Area   | CHAR(4)            | Sending control area specified in the NERC Tag.   | R                       |
| PSE                    | CHAR(6)            | Purchase selling entity specified in the NERC Tag.  | R                       |
| PSE Number             | CHAR(7)            | Unique number assigned by PSE that is specified in the NERC TAG   | R                       |
| Receiving Control Area | CHAR(4)            | Receiving control area specified in the NERC Tag.   | R                       |
| NERC Priority          | NUM(2)             | NERC Priority of transaction.   | R                       |
| User Ref               | CHAR(16)           | A reference used by the User to uniquely identify this transaction.   | R                       |
| Transaction Priority   | NUM(2,0)           | Ranking of this transaction relative to other transactions tied to same generator. 1 is last to be curtailed. Equal priorities are cut on a pro-rata basis. | R                       |
| Bid Energy MW          | NUM(5,0)           | Fixed block of energy MW supported by transaction.  | R                       |
| Sink Price Cap Dollars | NUM(6,2)           | Dollar value used to cut transaction based on energy value at sink.   | R                       |
| Decremental Dollar     | NUM(6,2)           | Decremental dollar value associated with transaction.   | R                       |
| FRP Confirm Status     | CHAR(1)            | Flag indicating if frp has agreed to transaction bid.   | R                       |
| Seller Confirm Status  | CHAR(1)            | Flag indicating if seller has agreed to transaction bid.  | R                       |
| Buyer Confirm Status   | CHAR(1)            | Flag indicating if buyer has agreed to transaction bid.   | R                       |
| Sched Energy           | NUM(5,1)           | Schedule amount of energy (MW)  | R                       |
| Min Run Time           | NUM(3)             | Minimum number of hours that must be selected if bid is accepted. This value will be null unless the bid is an MHBT.  | R                       |
| Optional HAM Bid Price | NUM(6,2)           | Price that should be use in real-time (HAM) evaluation.   | R                       |
| Bid Status             | CHAR(20)           | Current status of the bid (validation failed, validation passed, accepted, etc.)  | R                       |
| Message                | CHAR(1000)         | Validation messages providing bid details. Multiple messages are separated with a semi-colon.   | R                       |

### Delete Transaction Bid Submission Parameters

Bid id, transaction id, date & time, market, process unidentified bids (optional)

**Note:** Recommended deletion method is to enter bid id. Optionally, the transaction id, date & time, and market without bid id may be entered to delete a bid.

### ***Delete Transaction Bid Response Parameters***

date & time, source name, source PTID, sink name, sink PTID, market, spare, spare, spare, spare, spare, NERC priority, User reference, spare, spare, spare, bid id, transaction id, spare, spare, spare, spare, spare, spare, bid status, message

### ***Delete Transaction Bid Examples***

#### *Submission File Example*

```
BID_TYPE=DELETE_TRAN_BID&
USERID=testupld&
PASSWORD=testupld&
DATA_ROWS=3&
PROCESS_UNIDENTIFIED_BIDS=Y&
,107439,06/30/2007 00:00,DAM
255257,107503,06/30/2007 00:00,NON-FIRM
255258,,,
```

#### *Response File Example*

```
TIME_STAMP=06/23/2007 15:48
BID_TYPE=DELETE_TRAN_BID
DATA_ROWS=3
"06/30/2007
00:00","SUBZ_900101_38_GEN - 900301",900301,"BUS - 900320_38_TEST_BUS - 20",900320,"DAM","","","","","",7,"1001",,,255256,107439,,"WAITING CONFIRMATION","Buyer automatically confirmed.Transaction Seller not Confirmed."
"06/30/2007
00:00","SUBZ_900101_38_GEN - 900301",900301,"BUS - 900324_38_TEST_BUS - 24",900324,"NONFIRM","","","","","",6,"1006",,,255257,107503,"","","","",,"VALIDATION PASSED","Buyer automatically confirmed.Seller automatically confirmed."
"06/30/2007
00:00" "SUBZ_900103_38_GEN - 900307",900307,"BUS - 900320_38_TEST_BUS - 20",900320,"HAM ",","","","",7,"1008",,301,1,2,255258,107506,"","","","",,"WAITING CONFIRMATION","Transaction Buyer not Confirmed.Seller automatically confirmed."
```

## 8.3. Download Templates

### 8.3.1. Download Generator Bids and Schedules

#### **Generator Bids and Schedules**

##### **Data Dictionary**

| Variable Name                   | Value   | Mandatory |
|---------------------------------|---|-----------|
| USERID                          | Oracle account user name  | Y         |
| PASSWORD                        | Oracle account password   | Y         |
| QUERY_TYPE                      | GEN_SCH   | Y         |
| MARKET_TYPE                     | DAM or HAM  | Y         |
| DATE                            | MM/DD/YYYY HH24:MI  | Y         |
| CURRENT_ADVISORY_SCHEDULES_FLAG | A flag indicating if the User wishes to see the current advisory schedules for the generator (Y or N).  | Y         |
| GENERATOR                       | Name or PTID exactly as show in the MIS   | N         |
| STATUS                          | Pick one from list (see "Reasons to Review Generator Bids," beginning on page <a href="#">141</a> )   | N         |
| NUM_HOURS                       | A whole number between 1 and 23 which limits your query to a specified number of hours.   | N         |
| MODIFIED_DATE                   | A date in MM/DD/YYYY HH24:MI format which restricts your query to only that data which has been modified since the specified date. Can be used to reduce the amount of unchanged data being retrieved more than once. | N         |

#### **Generator Bids and Schedules Response Parameters**

generator name, generator PTID, date & time, market, expiration, upper operating limit, emergency upper operating limit, fuel type ID, burdened fuel price (\$), start-up cost (\$), bid schedule type id, self committed MWs 00, self committed MWs 15, self committed MWs 30, self committed MWs 45, fixed min. gen. (MW), fixed min. gen. cost (\$), dispatch curve MW(1-12), dispatch curve \$/MW(1-12), 10 min non-synch cost, 10 min spinning cost, 30 min non-synch cost, 30 min spinning cost, regulation capacity MWs, regulation capacity cost, regulation movement cost, bid id, sched energy, sched 10 min non-synch, sched 10 min spinning, sched 30 min non-synch, sched 30 min spinning, sched regulation capacity, forecasted reserve, spare, spare, spare, spare, bid status, message, current advisory schedules flag

#### **Generator Bids and Schedules Examples**

##### *Submission File Example*

USERID=testupld&

```

PASSWORD=testupld&
QUERY_TYPE=GEN_SCH&
MARKET_TYPE=DAM&
DATE=03/02/2004&
CURRENT_ADVISORY_SCHEDULES_FLAG=N&
GENERATOR=900101&

```

*Response File Example*

```

TIME_STAMP=03/01/2004 13:20
BID_TYPE=GEN_SCH
DATA_ROWS=1
" SUBZ_900101_38_GEN",900101,"03/02/2004
17:00","DAM","","20,20","","0,3,,,20,50,1,2,25,,,,,,10,20,30,,,,,,,,,,164616240,,,,,,","",","","","V
ALIDATION PASSED","","N"

```

### 8.3.2. Download Generator RTD Schedules

#### *Generator RTD Schedules*

##### *Data Dictionary*

| Variable Name                   | Value   | Mandatory |
|---------------------------------|---|-----------|
| USERID                          | Oracle account User name  | Y         |
| PASSWORD                        | Oracle account password   | Y         |
| QUERY_TYPE                      | GEN_RTD   | Y         |
| DATE                            | MM/DD/YYYY HH24:MI format   | Y         |
| CURRENT_ADVISORY_SCHEDULES_FLAG | A flag indicating if the User wishes to see the current advisory schedules for the generator or Aggregation (Y or N).   | Y         |
| GENERATOR                       | Name or PTID exactly as shown in the MIS  | N         |
| NUM_HOURS                       | A whole number between 1 and 23 which limits your query to a specified number of hours.   | N         |
| MODIFIED_DATE                   | A date in MM/DD/YYYY HH24:MI format which restricts your query to only that data which has been modified since the specified date. Can be used to reduce the amount of unchanged data being retrieved more than once. | N         |

### ***Generator RTD Schedules Response Parameters***

generator name, generator PTID, date & time, market, expiration, upper operating limit, emergency upper operating limit, fuel type ID, burdened fuel price (\$), start-up cost (\$), bid schedule type id, self committed MWs 00, self committed MWs 15, self committed MWs 30, self committed MWs 45, fixed min. gen. (MW), fixed min. gen. cost (\$), dispatch curve MW(1-12), dispatch curve \$/MW(1-12), 10 min non-synch cost, 10 min spinning cost, 30 min non-synch cost, 30 min spinning cost, regulation capacity MWs, regulation capacity cost, regulation movement cost, bid id, sched energy, sched 10 min non-synch, sched 10 min spinning, sched 30 min non-synch, sched 30 min spinning, scheduled regulation capacity, forecasted reserve, spare, spare, spare, spare, bid status, message, current advisory schedules flag

### ***Generator RTD Schedules Examples***

#### *Submission File Example*

```
USERID=testupld&
PASSWORD=testupld&
QUERY_TYPE=GEN_RTD&
DATE=03/02/2005&
CURRENT_ADVISORY_SCHEDULES_FLAG=N&
GENERATOR=900101&
```

#### *Response File Example*

```
TIME_STAMP=03/03/2005 01:19
BID_TYPE=GEN_RTD
DATA_ROWS=4
" SUBZ_900101_38_GEN",900101,"03/02/2005
00:00:00","RTD","",20,20,"","",0,3,,,20,50,1,2,25,,,,,,10,20,30,,,,,,,,,,164616240,,,,,,","","","","",
"BID ACCEPTED","","","N"
" SUBZ_900101_38_GEN",900101,"03/02/2005
00:05:00","RTD","",20,20,"","",0,3,,,20,50,1,2,25,,,,,,10,20,30,,,,,,,,,,164616240,,,,,,","","","","",
"BID ACCEPTED","","","N"
" SUBZ_900101_38_GEN",900101,"03/02/2005
00:10:10","RTD","",20,20,"","",0,3,,,20,50,1,2,25,,,,,,10,20,30,,,,,,,,,,164616240,,,,,,","","","","",
"BID ACCEPTED","","","N"
```

```

" SUBZ_900101_38_GEN",900101,"03/02/2005
00:15:00","RTD","","20,20","",",0,3,,,20,50,1,2,25,,,,10,20,30,,,,164616240,,,"",",",",",
"BID ACCEPTED","",",N"

```

### **8.3.3. Download Generator Commitment Parameters**

#### ***Data Dictionary***

| <b>Variable Name</b> | <b>Value</b>             | <b>Mandatory</b> |
|----------------------|--------------------------|------------------|
| USERID               | Oracle account User name | Y                |
| PASSWORD             | Oracle account password  | Y                |
| QUERY_TYPE           | U_COMM                   | Y                |
| GENERATOR            | Generator Name or PTID   | N                |

#### ***Generator Commitment Response Parameters***

generator name, generator PTID, min. run time, min. down time, max. stops per day, start-up notification, start-up bid time (1-6), start-up bid cost (1-6), notification hours to start (1-6), notification hours off line (1-6), commitment id, update User, update time

#### ***Generator Commitment Example***

##### *Submission File Example*

```

USERID=testupld&
PASSWORD=testupld&
QUERY_TYPE=U_COMM&
GENERATOR=900301

```

##### *Response File Example*

```

TIME_STAMP=08/04/2008 11:02
BID_TYPE=U_COMM
DATA_ROWS=1
"SUBZ_900101_38_GEN -
900301",900301,5,2,2,1,1,2,3,4,5,6,11000,12000,13000,14000,15000,16000,1,2,3,4,5,6,1,2,3,4,
5,6,105756,"TESTUPLD","08/04/2008 11:02"

```

### 8.3.4. Download Load Bids and Schedules

#### *Data Dictionary*

| Variable Name | Value   | Mandatory |
|---------------|---|-----------|
| USERID        | Oracle account User name  | Y         |
| PASSWORD      | Oracle account password   | Y         |
| QUERY_TYPE    | LOAD_SCH  | Y         |
| DATE          | MM/DD/YYYY HH24:MI  | Y         |
| LOAD_AREA_BUS | Name or PTID exactly as shown in the MIS  | N         |
| STATUS        | Pick one from list (see <b>Reasons to Review Load Bids</b> under section 7.5.2, )   | N         |
| NUM_HOURS     | A whole number between 1 and 23 which limits your query to a specified number of hours.   | N         |
| MODIFIED_DATE | A date in MM/DD/YYYY HH24:MI format which restricts your query to only that data which has been modified since the specified date. Can be used to reduce the amount of unchanged data being retrieved more than once. | N         |

#### *Load Bids and Schedules Response Parameters*

load name, load PTID, date & time, forecast MW, fixed MW, price cap 1 MW, price cap 1 dollar, price cap 2 MW, price cap 2 dollar, price cap 3 MW, price cap 3 dollar, interruptible type, interruptible fixed MW, interruptible fixed cost, interruptible capped MW, interruptible capped cost, bid id, sched price capped, sched interruptible fixed, sched interruptible capped,User bid status, message

#### *Load Bids and Schedules Example*

##### *Submission File Example*

```
USERID=testupld&
PASSWORD=testupld&
QUERY_TYPE=LOAD_SCH&
DATE=08/08/2008 00:00
```

##### *Response File Example*

```
TIME_STAMP=08/04/2008 11:05
BID_TYPE=LOAD_SCH
DATA_ROWS=2
"BUS - 900321_38_TEST_BUS - 21",900321,"08/08/2008
00:00",300,300,350,20,450,25,,,"30MIN",250,10,400,20,105718,,,,"VALIDATION PASSED",""
```

"BUS - 900322\_38\_TEST\_BUS - 22",900322,"08/08/2008  
 00:00",300,300,,,,,, "10MIN",250,10,,105719,,, "VALIDATION PASSED",""

### 8.3.5. Download Internal Transaction Bids and Schedules

#### *Data Dictionary*

| Variable Name  | Value   | Mandatory |
|----------------|---|-----------|
| USERID         | Oracle account User name  | Y         |
| PASSWORD       | Oracle account password   | Y         |
| QUERY_TYPE     | TRAN_SCH  | Y         |
| MARKET_TYPE    | DAM, HAM, or NON-FIRM   | Y         |
| DATE           | MM/DD/YYYY HH24:MI  | Y         |
| TRANSACTION_ID | The NYISO unique identifier of the static contract data associated with the bid.  | N         |
| SOURCE         | Generator name or PTID shown in MIS   | N         |
| SINK           | Name or PTID of load or withdrawal-eligible generator shown in MIS  | N         |
| STATUS         | Pick one from list (see <b>Reasons to Review Transaction Bids</b> under section 7.6.2, )  | N         |
| USER_REFERENCE | As defined in bid   | N         |
| NUM_HOURS      | A whole number between 1 and 23 which limits your query to a specified number of hours.   | N         |
| MODIFIED_DATE  | A date in MM/DD/YYYY HH24:MI format which restricts your query to only that data which has been modified since the specified date. Can be used to reduce the amount of unchanged data being retrieved more than once. | N         |

#### *Transaction Bids and Schedules Response Parameters*

date & time, source name, source PTID, sink name, sink PTID, market, spare, spare, spare, spare, NERC priority, User reference, spare, bid energy MW, spare, spare, bid id, transaction id, frp confirm status, seller confirm status, buyer confirm status, sched energy, spare, spare, bid status, message

#### *Transaction Bids and Schedules Response Examples*

##### *Submission File Example*

```
USERID=testupld&
PASSWORD=testupld&
QUERY_TYPE=TRAN_SCH&
DATE=08/08/2007&
```

MARKET\_TYPE=DAM

*Response File Example*

```
TIME_STAMP=08/04/2007 11:06
BID_TYPE=TRAN_SCH
DATA_ROWS=1
"08/08/2007
00:00","SUBZ_900101_38_GEN - 900301",900301,"BUS - 900320_38_TEST_BUS - 20",900320,
DAM",,,,7,"1001",,301,,105725,104197, "Y","Y","Y",,,,"VALIDATION PASSED","Buyer
automatically confirmed."
```

### **8.3.6. Download Generator Details**

#### ***Data Dictionary***

| <b>Variable Name</b> | <b>Value</b>                             | <b>Mandatory</b> |
|----------------------|--|------------------|
| USERID               | Oracle account User name                 | Y                |
| PASSWORD             | Oracle account password                  | Y                |
| QUERY_TYPE           | GEN_DETAIL                               | Y                |
| GENERATOR            | Name or PTID exactly as shown in the MIS | N                |

#### ***Generator Detail Response Parameters***

generator name, generator type, group generator name, NERC unit id, zone name, subzone name, active, contact name, contact address, contact primary phone, contact secondary phone, contact fax, contact e-mail, contact pager, PTID, max summer operating limit, max winter operating limit, summer ICAP contracts, winter ICAP contracts, physical min gen (MW), emergency response rate, normal response rate 1, normal response rate 2, normal response rate 3, normal response rate mw1, normal response rate mw 2, generator regulation capacity response rate, generator 6-second regulation response rate, penalty factor, power factor, AVR qualified, unit VAR capability leading MW (1-6), unit VAR capability leading MVAR (1-6), unit VAR capability logging MW(1-6), unit VAR capability logging MVAR(1-6), DAM fixed energy qualified, DAM regulation control qualified, DAM 10 minute non-synch qualified, DAM 30 minute non-synch qualified, DAM dispatch qualified, DAM 10 minute spinning qualified, DAM 30 minute spinning qualified, HAM fixed energy qualified, HAM regulation control qualified, HAM 10 minute non-synch qualified, HAM 30 minute non-synch qualified, HAM dispatch qualified, HAM 10 minute spinning qualified, HAM 30 minute spinning qualified

## ***Generator Detail Response Examples***

### *Submission File Example*

```
USERID=testupld&PASSWORD=testupld&QUERY_TYPE="GEN_DETAIL"&GENERATOR=23573
```

### *Response File Example*

```
TIME_STAMP=09/30/2008 14:45
```

```
BID_TYPE=GEN_DETAIL
```

```
DATA_ROWS=1
```

```
"ACME GEN","UTILITY GENERATOR","",","CAPITL","NMPC CAPITAL","Y","JOHN DOE","Public  
Gas 80 Park Plaza Newark, NJ ","212-888-8501","","",  
"JOHNDOE@pg.com","",23573,95.5,95.5,0,0,10,1,1,0.6,0.6,1,0.6,1,,,"Y"  
,,,,,,,,,,,"N","N","N","N","N","N","N","N","N","N","N","N","N","N","N","N"
```

### **8.3.7. Download Generator Outages/Deratings**

#### ***Data Dictionary***

| <b>Variable Name</b> | <b>Value</b>   | <b>Mandatory</b> |
|----------------------|--|------------------|
| USERID               | Oracle account User name   | Y                |
| PASSWORD             | Oracle account password  | Y                |
| QUERY_TYPE           | GEN_OUT  | Y                |
| GENERATOR            | Name or PTID exactly as shown in the MIS   | N                |
| OUTAGES              | If provided, determines range of data to be displayed. Unless value = 'CURRENT' all data will be retrieved, regardless of date | N                |

#### ***Generator Outages/Deratings Response Parameters***

generator name, winter limit, summer limit, min gen, start date, end date, derating, message

#### ***Generator Outages/Deratings Response Examples***

##### *Submission File Example*

```
USERID=testupld&PASSWORD=testupld&QUERY_TYPE=GEN_OUT&OUTAG  
ES="CURRENT"
```

##### *Response File Example*

```
TIME_STAMP=07/11/2008 16:06  
BID_TYPE=GEN_OUT  
DATA_ROWS=1  
"SUBZ_900101_38_GEN - 900301",1000,900,200,"07/11/2008  
00:00","07/12/2008 00:00",500,"NO REASON"
```

### **8.3.8. Download Load Bus Details**

#### ***Data Dictionary***

| <b>Variable Name</b> | <b>Value</b>                             | <b>Mandatory</b> |
|----------------------|--|------------------|
| USERID               | Oracle account User name                 | Y                |
| PASSWORD             | Oracle account password                  | Y                |
| QUERY_TYPE           | LOAD_DETAIL                              | Y                |
| LOAD_AREA_BUS        | Name or PTID exactly as shown in the MIS | Y                |

### **Load Bus Details Response Parameters**

active, load name, lse, zone, subzone, edc area, PTID, energy bid qualified, price cap bid qualified, interruptible 10 minute bid qualified, interruptible 30 minute bid qualified

### **Load Bus Details Response Examples**

#### *Submission File Example*

```
USERID=testupld&PASSWORD=testupld&QUERY_TYPE="LOAD_DETAIL"&
LOAD_AREA_BUS=900321
```

#### *Response File Example*

```
TIME_STAMP=07/11/2008 09:59
BID_TYPE=LOAD_DETAIL
DATA_ROWS=1
"Y","BUS - 900321_38_TEST_BUS -
21","TESTLSE1","ZONE-900001","SUBZONE-900101","2",900321,"Y","Y","N",
N"
```

### **8.3.9. Download Transaction Contracts**

#### **Data Dictionary**

| <b>Variable Name</b>       | <b>Value</b>  | <b>Mandatory</b> |
|----------------------------|---|------------------|
| USERID                     | MIS User name   | Y                |
| PASSWORD                   | MIS User password   | Y                |
| QUERY_TYPE                 | TRAN_CONTRACT   | Y                |
| TRANSACTION_ID             | Returned in response.   | N                |
| SOURCE                     | Generator name or PTID shown in MIS   | N                |
| USER_REFERENCE             | As defined in bid.  | N                |
| NUM_ROWS                   | Number of rows to return in response  | N                |
| TRANS_PRIORITY             | Transaction Priority  | N                |
| SINK                       | Name or PTID for load or withdrawal-eligible generator shown in MIS   | N                |
| NERC_PRIORITY              | As defined in bid.  | N                |
| SOURCE ENERGY OWNER ORG ID | Source Organization associated with a transaction having a Trading Hub as its source. Response for this value will be blank if the source is not a trading hub generator. | N                |
| SINK ENERGY OWNER ORG ID   | Sink Organization associated with a transaction having a Trading Hub as its sink. Response for this   | N                |

| Variable Name | Value  | Mandatory |
|---------------|--|-----------|
|               | value will be blank if the sink is not a trading hub load bus. |           |

### ***Transaction Contracts Response Parameters***

transaction id, source, sink, User ref, source energy owner org id, sink energy owner org id, spare, spare, transaction priority, last update User, last update time.

### ***Transaction Contracts Examples***

#### *Submission File Example*

```
USERID=testupld&PASSWORD=testupld&QUERY_TYPE=TRAN_CONTRACT &
NUM_ROWS=1
```

#### *Response File Example*

```
TIME_STAMP=07/11/2007 16:23
BID_TYPE=TRAN_CONTRACT
DATA_ROWS=1
118282,"SUBZ_900101_38_GEN - 900301","BUS - 900320_38_TEST_BUS -
20","1003","","","","","testupld","07/11/2007 04:38"
```

#### **8.3.10. Retrieval of Historical Data**

Retrieval of the historical data for the download templates is limited to ten (10) calendar days.

**Note:** Downloads are limited to a maximum result set of 50,000 records.

## 9. BIDDING AND SCHEDULING ERROR MESSAGES

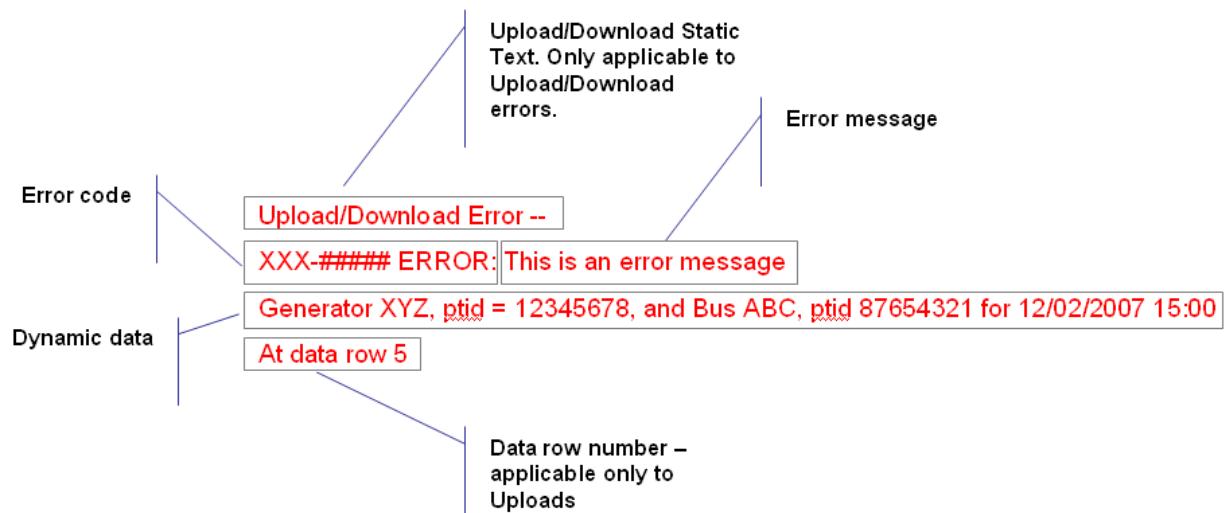
### 9.1. Introduction

This section describes the format for error messages that are displayed to end users when an issue is encountered submitting, reviewing, updating, deleting, or downloading the following data, either through Web-Based Market Interactions or with Upload/Download Batch Procedures:

- Load bids
- Virtual load/supply bids
- Internal transaction bids, including transaction confirmations
- Transaction contracts
- Generator bids
- Generator details
- Generator unit commitment data
- Generator outages/derates

#### 9.1.1. Error Guidelines

Errors will be structured as follows:



#### 1) Error code

All errors shall begin with unique error code. For example,

CBM-100001

Error code syntax shall be as follows:

XXX-##### where:

XXX = an internal alphanumeric code meaningful to the NYISO

##### = a five-digit numeric code

## **2) Error message**

The actual error message begins with the word “ERROR:” followed by a single space, then followed by the actual message describing the error. For example,

ERROR: The field Market may not be left null.

## **3) Dynamic Data**

Whenever applicable, dynamic data will be appended to the error on the line following the error message. For example,

CBM-20015 ERROR: Cannot bid a 25th hour on this day.

Bus XYZBus, ptid = 12345678 for [bid time]

## **4) Upload/Download Static Text**

In all cases of an Upload/Download error, the following text will be included in the line immediately preceding the error message line:

Upload/Download Error -

For example:

Upload/Download Error --

CBM-20015 ERROR: Cannot bid a 25th hour on this day.

Bus XYZBus, ptid = 12345678 for [bid time]

### **5) Data Row Number**

For any Upload (not download) errors that have to do with a specific row of data in the body of an input file, the following text will be included as the last line of the error, after the dynamic data:

At data row [data row#]

For example:

Upload/Download Error --

CBM-20015 ERROR: Cannot bid a 25th hour on this day.

Bus XYZBus, ptid = 12345678 for [bid time]

At data row 5